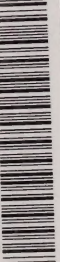


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DEPARTMENT OF MINES AND TECHNICAL SURVEYS
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YUGOSLAVIA

A GEOGRAPHICAL APPRECIATION

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PREFACE

The Geographical Branch of the Department of Mines and Technical Surveys was established to collect, organize and make readily available geographical data about Canada and foreign areas of importance to this country.

The division of the Branch concerned with research on the geography of foreign areas will publish information reports, from time to time, on each of the major groupings of countries in the Western Hemisphere, Western Europe, Eastern Europe and Northern Asia, the Middle East and Africa, the Far East and Oceania.

The report on Yugoslavia is designed to introduce the reader to the main features of the physical, economic and social geography of that country. It is illustrated by maps that have been specially devised to show current information.

Yugoslavia is a state in a transitional position between Western and Eastern Europe, between the southern seas and central plains, between the Roman and Orthodox faiths and between industrial and agricultural lands. It is therefore of special interest in that it shows the influences and forces at work shaping European economy and policy.

The report has been made as simple and straightforward as possible. This has necessitated certain omissions and generalizations. The study may be amplified by reference to map and textual sources described in the bibliography.

J. Wreford Watson

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Director, Geographical Branch.

Acknowledgements

"Introduction", by the Director; "Yugoslavia in its European Setting", by Miss B. J. McLeod; "Physical Geography", by G. de R. Taylor; "The People" and "Historical and Political Geography", by B. Shindman; "Economic Geography", by W. Waters. Maps were prepared in the Cartographical division under R. T. Gajda. The general preparation of the report was supervised by G. A. Bevan, Foreign Geography Research division.

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INTRODUCTION

Yugoslavia has had an increasing interest for Europe and the world as a country which has tried to organize a united movement amongst the diverse elements of the Southern Slavs towards national independence and viability. Long a buffer region between Austria and Turkey, between Christianity and Mohamedanism, between Europe and Asia, it has had a complex history.

This is due, in part, to the complexity of its geography, of the natural environment and of the geography of colonization and settlement.

To the geographer, Yugoslavia is associated with two things: Karst topography and Balkanization, that is to say, with a very involved and broken relief and a similarly intricate and deranged human pattern.

Karst topography is developed along the western coast. It consists of deep, isolated basins, narrow and profound gorges, underground caves and rivers, lakes which appear and disappear, barren, rocky uplands, and relatively fertile though restricted lowlands that have all been developed by solution processes acting on porous limestone. The result is one of the most startlingly rugged and interrupted sorts of landscapes. The people living there find communication and transportation difficult and have long been isolated from each other and the world outside.

The relief of the rest of the country is also varied. Rising above the Karst are ridges of youthful mountains, which reach elevations of 8-9,000 feet. These tend to divide coastal settlements from those of the interior. On the east side of the country the Rhodope Mountains of Bulgaria cross the frontier and produce a massive relief of crystalline rock. The Vardar Valley lies like a narrow corridor between the western and eastern ranges. The Morava corridor is its counterpart in the north. Only where this opens out onto the plains of Beograd (Belgrade) and the Danube is there any extensive area of lowland. Yet even here there is no uniformity of conditions, because the several tributaries of the Danube, in particular the Tisza, have brought down other peoples, such as the Rumanians and Hungarians, to settle in the Serbian homeland.

The complex relief, with several well-marked corridors and barriers, has produced a very involved ethnic, religious, linguistic and political pattern. The extension of Turkish power up the Vardar, of Austrian power down the Sava and the Drava, of Byzantine and later of Russian influences from the East, of Roman, Venetian and Italian influences from the West, and the fragmentation of all these influences in the discontinuous landscape, led to the division of the Southern Slavs themselves, and to the presence of many minority elements.

The comparative isolation of the various groups made it difficult for either Austria or Turkey to absorb them into any larger groupings. Thus strong heretical or revolutionary movements sprang up from time to time to arouse hopes of freedom and independence. This was true of other

parts of Danubia and of the Balkans, and produced the repeated emergence of small states or principalities. Where the Balkan Wars were fought against Turkey there followed the rise of many small states and the "Balkanization" of the area from which that great power was forced to withdraw. The principle of national self-determination, accepted after the First World War, further strengthened the tendency to divide and subdivide the Balkan area.

The rise of Yugoslavia was an attempt both to develop and yet to control such a tendency. Yugoslavia used the strong sense of independence against outside powers to produce an independent nation, but then had to organize a united front of the various independent groups to form a viable country. It is this experiment which has held the attention of the rest of Europe.

Of great assistance to Yugoslavia has been the fact that it is developing as a youthful state at a time when older nations are needing its resources to make up for their exhausted stocks of fuels and raw materials. Thus the country has a very strategic geo-economic position. When the western nations, such as Britain and Germany, were in the heyday of industrial and commercial expansion, Yugoslavia was an almost entirely agricultural land. Therefore its hidden reserves of minerals and other raw materials lay practically untouched.

Now that the Western Powers have exhausted a part, if not most, of many of their fuels and metals, and have to look elsewhere to complete their supplies; and now that Yugoslavia has reached the economic and technical stage of developing its resources, the geo-economic situation is very favourable to its national growth and expansion. Yugoslavia is specially important as a major source of supply for the aluminium industry of the West.

Since its rise as a nation Yugoslavia has shown an interesting attempt at balancing its affiliations and obligations with the Western and Eastern Powers. The Pan-Slavic movement, and later the Communist International movement, both gave the country ideological ties with Russia. On the other hand, it has always had the strongest economic ties with the West, particularly with Germany, France and Britain.

For a short period it tried to associate both its ideological and economic development with Russia; but the economic situation did not favour this. Russia has an abundance of the things which Yugoslavia produces, and is itself anxious to develop its own sources of their supply. At the same time, Russia cannot supply the machinery and other capital goods and consumer products needed by Yugoslavia if that country is to expand its economy and raise its standard of living.

The isolation of Yugoslavia from the Cominform and the gradual orientation of its economy once again to the West are matters of particular moment at the present time. These give Yugoslavia a position of almost unique concern both to the U.S.S.R., and to Great Britain and the United States.

Chapter 1

YUGOSLAVIA IN ITS EUROPEAN SETTING

1

Yugoslavia, eccentric to Central Europe in position, is, nevertheless, oriented towards this region by means of its physiography and its routeways. For, although about three-quarters of the country is set in the Balkan Peninsula, it presents to the Adriatic and Italy a rugged, uninviting coast, and to Bulgaria a sturdy mountain barrier, whereas toward Central Europe it opens out in wide, easily traversed plains.

This location and orientation has forced the country into a dual existence - partly Balkan, partly Central European (Fig. 1). In physiography and cultural heritage, the land is Balkan; in climate, flora and orientation, it is dominantly Central European. Situated as it is across the Balkan Peninsula and the Danube routeway it has all through history been a region of migration, conflict and ethnic diversity.

In shape, the country is more or less trapezoidal, with the long axis trending northwest to southeast, parallel to the Adriatic. In length, it extends from Austria to within about fifty miles of the Aegean Sea. At its widest point, Yugoslavia stretches across half the width of the Balkan Peninsula.

The country is bordered by seven nations; Austria, Hungary, Rumania, Bulgaria, Greece, Albania and Italy. The northern frontier with Austria, Hungary and Rumania is strategically the weakest but is economically strong as its open nature permits easy access into Central Europe. To the east, the mountain frontier with Bulgaria is strategically the strongest and recent boundary changes have added to its strength. The frontier to the south, with Greece and Albania, in general trends across the mountain chains through which access to the Aegean is obtained via the Vardar-Morava Valley. This frontier has seen only few changes in marked contrast with the north-western section, with Italy, where many boundary fluctuations have occurred.

Physiographically, Yugoslavia is a land of contrasts ranging in relief from low coastal promontories and broad inland plains to high mountain peaks reaching elevations up to 9,000 feet. The state, as constituted in 1918, can be divided into two vastly different types of country. The first is the basin of the middle Danube which stretches in its entirety from the Alps to the Carpathians and occupies the northern third of Yugoslavia. The second is the mountainous country of the Balkan Peninsula with its many chains paralleling the coast. This dualism gives Yugoslavia both a continental or Central European component and a Balkan component.

The characteristically Balkan part of the country is rugged and mountainous, consisting of folded, Tertiary mountains which lie in a broad

1

Central Europe includes the land lying between the Baltic and the Adriatic, and between the plains of Poland and central Germany.

Fig. 1

zone from Slovenia to western Macedonia. Although these mountains lack the elevations of the main Alpine ranges they link the Balkans structurally with the rest of Alpine Europe and the great ranges of fold mountains which border the Mediterranean Basin. The southern Dinarics, as these mountains are called in Yugoslavia, are composed of pure limestone across which there is little surface drainage to the sea. As a result there are few open valleys leading to the Adriatic and few good ports have been developed along the coast. Those that have developed, Zara and Split for example, have no hinterland with which to trade and thus remain relatively unimportant. Although Yugoslavia has almost 1,000 miles of coastline, excluding islands, access to the sea is obtained only by means of difficult mountain routes. (These same ranges descend northeastward in easy terraces to the open plain of the middle Danube where communication and travel are easy.) However, despite its rugged character, the mountain belt as a whole includes numerous isolated basins whose fertile plains together are of a considerable area and importance.

A second structural unit which is found in the southeastern section of Yugoslavia is the Rhodope Massif. This ancient crystalline block is the structural core of the Balkan Peninsula and is similar in structure to other massifs of the Central European mountain system. It forms the core against which these mountain ranges were folded.

The third, and economically most important, unit of Yugoslavia is the plain of the Sava, Drava and middle Danube which links northern Yugoslavia with the plain of Central Europe. The Danube Plain, although a relatively small portion of the country, exercises a considerable influence on the way of life, communication, trade and orientation of the people.

Yugoslavia is affected by three different climatic types as a result of its diversity of relief and its transitional position between Central Europe and the Mediterranean. The Adriatic coast, and to some extent the areas nearest to the Aegean, come under the influence of the Mediterranean regime and experience mild winters, hot summers and a moderate rainfall with a winter maximum, whereas the northern plains experience a continental climate, almost the reverse of the coastal areas, and have hot summers, cold winters and a rainfall maximum in summer. In the mountainous areas heavier precipitation and colder temperatures give rise to a third climatic type. The Adriatic coast is well-known for the local winds which sweep seaward down the mountain valleys and bring a rapid change in temperature. The Bora, a cold wind, cascades down to the coast often with gale force causing coastal shipping and, occasionally, land communication as well, to cease. Other winds, both cold and warm, are also peculiar to this area. The trend of the mountains parallel to the coast is in large measure responsible for these winds as well as for the distribution of climatic types in Yugoslavia. The Dinaric Mountains rising abruptly from the Adriatic sea cut off the ameliorating maritime air whereas the open plains to the north allow continental influences to extend far to the south. In general, altitude has a greater climatic effect than does latitude.

The Southcentral European flora is reported to be the richest in Europe. Of the 3,000 floral species found in Yugoslavia many are endemic, some being relics of Tertiary flora; many are of the Alpine type. There are also to be found representatives of both Mediterranean and Central European types and many intermediate species.

Climate, soil and biotic factors combine in Yugoslavia to produce a dominantly forest vegetation.

The chief soil differences which occur are those between the infertile calcareous and the more fertile non-calcareous soils. In the calcareous regions and in basins of porous soil, grass is the main vegetational type, whereas in areas of richer soils, forests are dominant. Since the coming of the Slavs in the sixth and seventh centuries, man's influence, both direct and indirect, has left its imprint on the vegetation. Forests have been cleared; land has been drained and cultivated; flocks and herds have been pastured and the pattern of the natural vegetation has been radically changed.

With an area of 99,000 square miles, Yugoslavia is larger than any of the seven bordering countries except Italy (116,235 sq. mi.), and her population of 15,752,000 is exceeded only by Italy (46,110,000) and Rumania (16,409,000). Population densities in Yugoslavia as a whole are not high, and most of the people live in the northeast on the middle Danubian Plain where the land is open and communication easy. Beograd, the capital and largest city, is situated at the junction of four important routes; the upper Danube penetrating into the heart of Europe; the lower Danube leading eastward to the Black Sea; the Sava (a tributary of the Danube) leading westward to the Pear Tree Pass of Istria and to Italy; and the Vardar-Morava Valleys permitting access southward from the Danube to Thessaloniki (Salonica) and the Mediterranean. The strategic site of Beograd has been occupied since prehistoric times; each succeeding conqueror building a stronghold at this junction of routes. As a result, Beograd has been a point of conflict through the ages.

Central Europe is traversed by a number of other corridors or folkways joining east and west, but the Danube, between the folded ranges of the Carpathians and those of the Alps and Dinaries, is the most important historical route. Since prehistoric times peoples have been moved out of Asia along this corridor to Western Europe. This folkway has thus been largely responsible for Yugoslavia's past history and development and, to a certain extent, for its present position in world affairs.

All through historic times Central and Southcentral Europe have formed a "shatter belt" where conflict has occurred between the peoples of the west and these migratory peoples from the east. Rome had her Illyrian and Pannonian Provinces in what is now Yugoslavia and it was here that the power of Rome cracked under successive migrations of the war-like Germanic tribes - the Vandals, Visigoths and Ostrogoths. Later barbarian tribes - the Huns, Slavs, Lombards, Avars and Magyars - also fought and conquered within this area. It was not until the late sixth and early seventh centuries that the Slavs, the Croats, the Slovenes and the Serbs came from the north and east and settled in the Balkan Peninsula. Germans from Austria, and later Germany, Russians from the regions of the Great Slavs, and Turks have also interested themselves in, and contended for, Yugoslavia.

The longest period of subjugation was under the Turks, and during this period the peasants who had occupied the plains were forced into the mountainous regions where, usually, the country was too worthless for the Turks to follow. As a result, the peasants in the hills remained in an illiterate and backward stage of development, merely existing on the small

plots of land they found suitable for cultivation.

Even after the lands of Southcentral Europe were freed from Turkish domination, the area was not allowed to develop freely as it then became the focal point of first Austrian and, later, German expansion. Finally the country came under the influence of Tsarist Russia and the Soviet Union.

Long-continued domination by alien rulers has had two important effects on the South Slavs. In the first place, most social classes except the peasants were destroyed. Even the clergy became either illiterate or foreign. In the second place, cultural and economic life stagnated. Thus, the South Slavs obtained their political freedom in the nineteenth and twentieth centuries with a simple and undeveloped social structure and a backward economic system. Since Southcentral Europe has little coal and poorly developed water power, it lacks the essentials of heavy industry. Most of her metallic ore products were exported unprocessed until recently so that industry has progressed only slowly. In addition, agriculture, the basis of life, is backward. Serfdom continued in Southcentral Europe long after it was abolished in Western Europe and it is only since the First World War that large scale agrarian reforms have reallocated the land. Both subsistence and export agriculture are practised in Yugoslavia, and agricultural products are an important item in Yugoslavia's trade. The country is therefore stronger, economically, when world agricultural markets are stable.

The growth of nationalism in the last two or three generations has led to attempts at creating a national economy. However, this is meeting many difficulties. Unlike many of the countries of Western Europe, at least half of the states in the new Yugoslavia had had no previous governmental experience. As a result, the first years of the new nation were difficult. Yugoslavia had her external problems as well, because, owing to her strategic location across the Balkans and two of the routes leading to the Bosphorus and the Black Sea, the country could command notice as a world power. A prosperous, well-governed, independent nation across this strategic peninsula is a necessity for the peace and well-being of Europe.

Chapter 2

PHYSICAL GEOGRAPHY

Yugoslavia is a land of varied relief. The main contrast lies between the complex mountainous country to the west and south, and the vast level basin of the middle Danube to the east and north. The relief of these two ranges from a few hundred feet above sea level on the coastal promontories and the inland plain to about 9,000 feet on the alpine summits of Slovenia. The country as a whole has thus a dual physical character.

The Balkan region, or peninsular part of the country, occupies three-quarters of the state and lies, for the most part, south of the Sava and Danube Rivers. It stretches from Slovenia in the northwest through Yugoslavia to the Albanian and Greek frontiers in the southwest. In places, the mountains exceed 8,000 feet and at some points overlook the Adriatic Sea to which they descend abruptly. They tend to shut Yugoslavia off from the Mediterranean Sea and to orient it towards the interior.

The Danubian or Central European region makes up one-quarter of the country. It lies north of the Sava and Danube Rivers and is continental in character. The land is mostly about 350 feet in altitude and is often monotonously flat and level. It is here, however, that the nation's main activities are concentrated.

GEOLOGICAL STRUCTURE

Both the mountainous Balkan area and the Danubian Plain, though very different, resulted from the same structural processes.

The Balkan area of Yugoslavia was formed by a series of mountain-building movements which took place in Tertiary times. These were concentrated about a core of ancient crystalline rocks in the southeast (Fig. 2). Great thicknesses of sedimentary rocks were intensely folded and crushed against this crystalline core, forming the belts of Tertiary fold mountains to the west and the east. In the same period the broad Danubian Basin was depressed. The geological history of the country can be considered in three sequences; early Tertiary, dominated by mountain building; late Tertiary, characterized by volcanic activity and faulting; and the quaternary or Recent epochs, marked by erosion.

Early Tertiary Earth Movements

The vast crustal movements in early Tertiary times were largely controlled by the crystalline massif that underlies the Balkans and is exposed in part in southeastern Yugoslavia (Fig. 3). West of this crystalline block, from Slovenia to western Macedonia, lies a broad zone of fold mountains. In the north they form part of the eastern Alps, and trend from west to east. In the centre, as the Dinaric Mountain system, they run from northwest to southeast. In the south they trend from north to south and continue beyond the frontier through southern Greece.

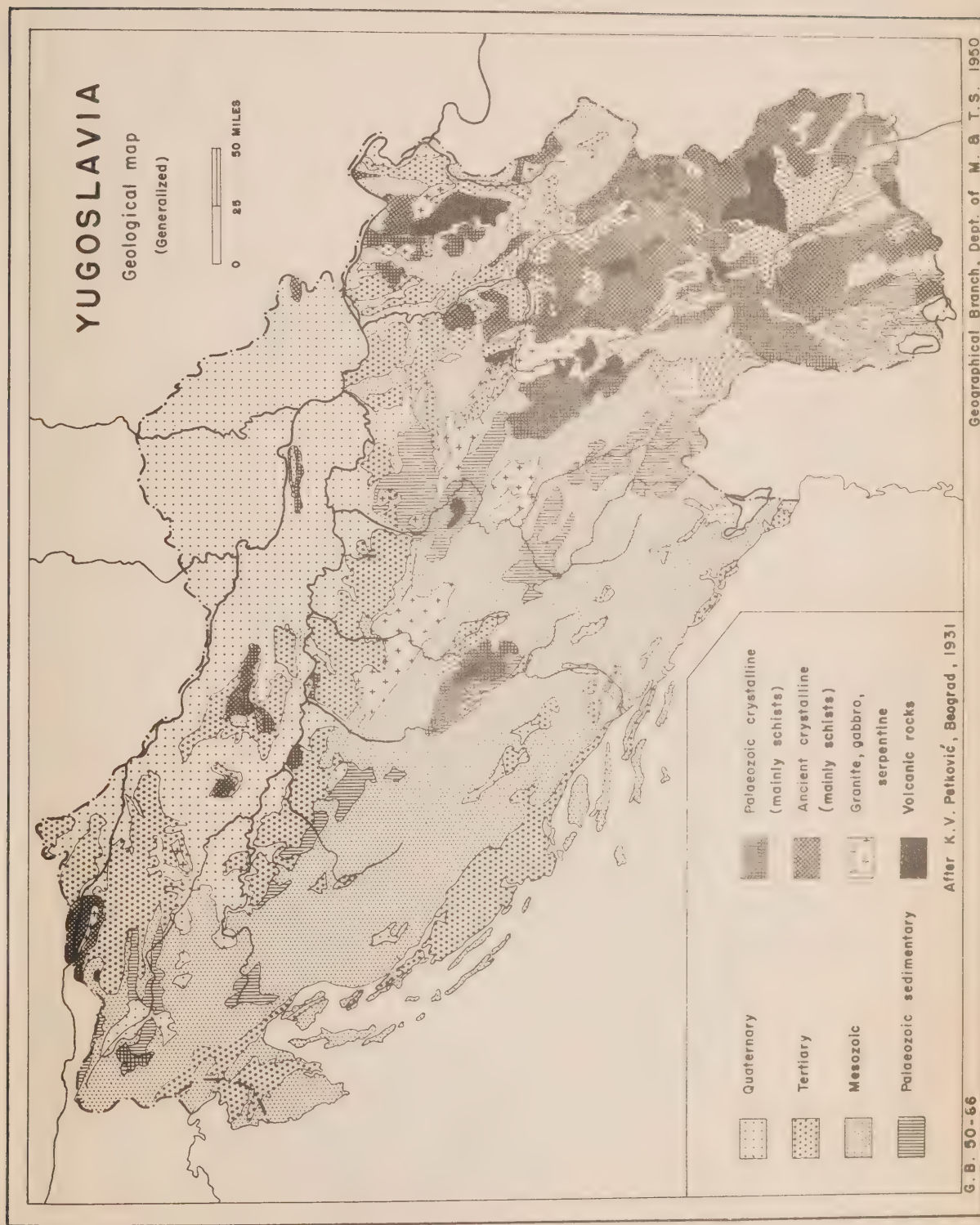


Fig. 2

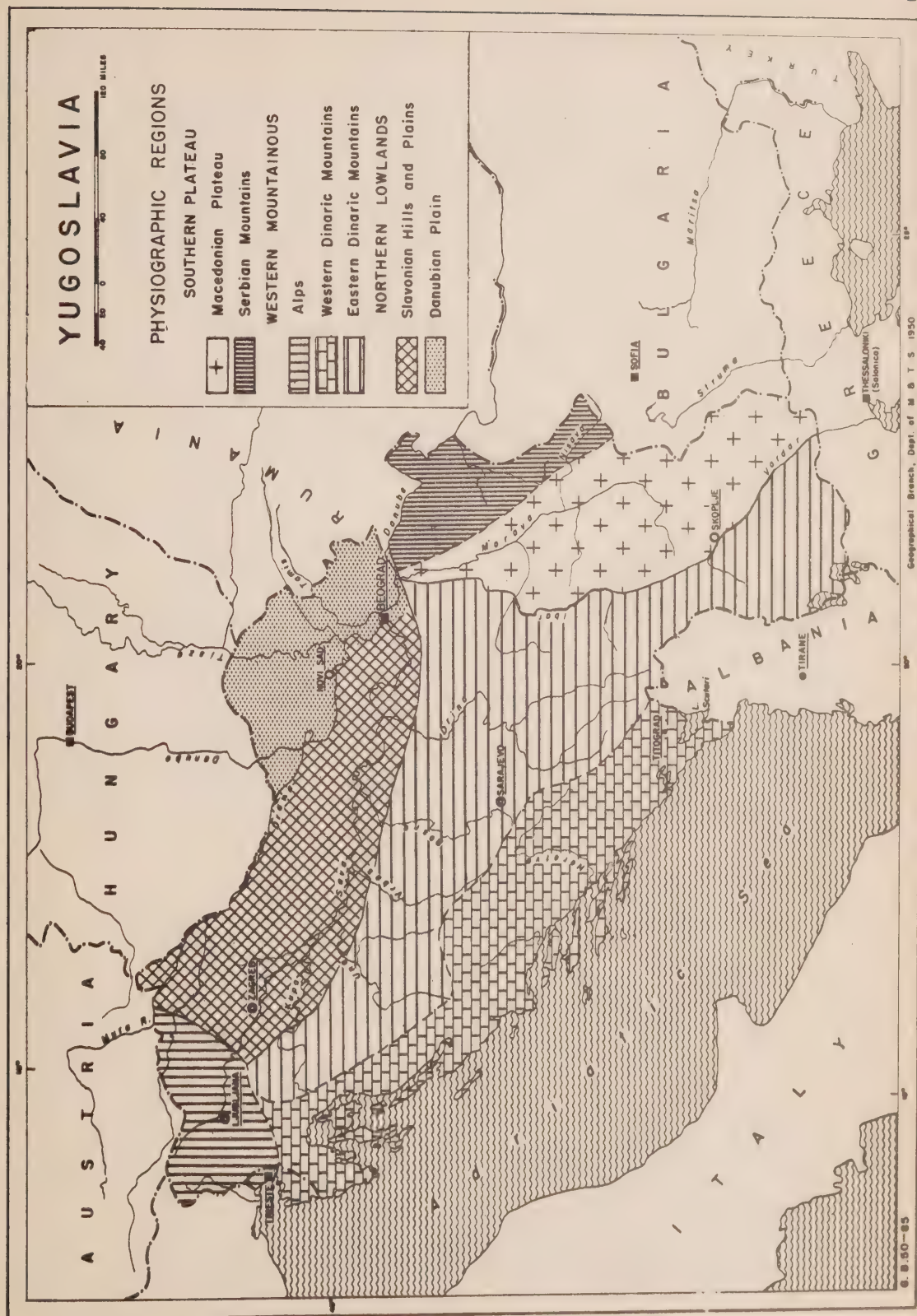


Fig. 3

In the Danube Basin subsidence rather than uplift occurred. The area was covered by great seas and lakes in which clays, sandstones and marls were deposited. The wide distribution of these rocks shows that the Tertiary seas extended into the very heart of the peninsula. Surfaces which stood above these seas were worn down through the slow abrasive action of rivers. This resulted in widespread surfaces of very subdued relief (peneplains).

Late Tertiary Earth Movements

Towards the end of the Tertiary period came another period of earth disturbances accompanied by local volcanic action. The Balkan land area was again raised, tilted and fractured. As the Tertiary seas receded a series of terraces were cut in the larger valleys. The vast peneplains were elevated and fractured, and came to appear as high and low plateaux. In many areas the former smooth surfaces were turned into a chaos of ridges and flattened crests. Consequently, trough-shaped basins frequently occur between narrow ridges or are cut into the plateau surfaces.

Quaternary and Recent Earth Sculpture

The Quaternary period culminated in the fluctuating climatic conditions of the Ice Age. The area in Yugoslavia most affected was Slovenia in the northwest. In this area lofty mountains and heavy precipitation resulted in extensive glaciation. Throughout the rest of the country the direct effects of ice action were localized. A large part of the Danubian Basin is covered by loess which was deposited during intervals of cold, steppe-like climate that characterized certain phases of the Pleistocene Ice Age. Along the coast, the folded, faulted and eroded fringes of the western mountain belt have been partially drowned by a 'recent' rise in sea-level. The chains of islands represent the summits of mountains separated from the mainland within the last million years.

PHYSIOGRAPHIC REGIONS

Yugoslavia may be divided into three main physiographic regions:-

Western (Mountainous) Yugoslavia

Northern (Lowland) Yugoslavia

Southern (Plateau) Yugoslavia

Each of these regions may be further divided into sub-regions based upon local variation (Fig. 3).

Western Yugoslavia

The backbone of this region is formed by the Dinaric Alps which extend from Slovenia in the northwest to Greece, with a northwest-southeast trend. In the north this mountain range makes contact with the Julian Alps.

In general the relief of Western Yugoslavia is dominated by high mountains. Limestone is widespread in the west. Formations of crystalline rocks, with lesser amounts of sandstone, shale and limestone, are prevalent in the east.

This region can be divided into three sub-regions:-

The Western Dinaric (Karst)

The Eastern Dinaric

The Alpine

The Western Dinaric (Karst) Sub-region. The Karst extends along the Adriatic coast from the Alps in the north to Greece in the south. It has a maximum width of 50 miles, rising abruptly from the coast and extending inland in three plateau levels which represent former pene-plained surfaces. There is a maximum elevation of 8,000 feet.

The area is predominantly floored with a very porous limestone which has given the district its barren waterless character. Surface drainage is poorly developed with only one river of any size, the Maritva, crossing the Karst. For the most part, streams appear at the surface intermittently and then disappear for long distances. Extremely rugged terrain has resulted, with profound gorges and deep, landlocked "solution" basins.

The Karst is also the coastal region of Yugoslavia. The country has a total coastline of 3,220 miles along the Adriatic and from one end of the coast to the other the same general characteristics apply - few good harbours, and, as this is an area of recent submergence, a great many islands, and long, narrow inlets.

The Eastern Dinaric Sub-region. East of the Karst lies a long belt of mountainous country composed of impermeable rocks. The trend of the mountain system is northwest to southeast, similar to the Karst. A cross-section of the Eastern Dinaric region would show a succession of mountain ranges and longitudinal valleys. The highest portion of the area is in the northwest towards Sarajevo, although throughout most of the region elevations exceed 6,500 feet.

The region has a normal drainage system in comparison to the Karst. Four rivers flow in the longitudinal valleys. These valleys are deep and narrow throughout most of their length. In places the rivers have cut short transverse gorges as they flow eastward to join the Danube River system.

The Alpine Sub-region. This is an area, in the northwest, of high and rugged relief. In general, the elevation exceeds 6,000 feet, with Mt. Tugloin, the highest peak in Yugoslavia, rising to 9,393 feet. Towards the east the mountains grade into a well-dissected plateau nowhere exceeding an elevation of 3,000 feet.

Extensive glaciers have left their mark on the mountains of this part of Yugoslavia. Valleys have been deepened and have been given the characteristic U-shape.

Northern (Lowland) Yugoslavia

This region lies north of the Sava River and east of the Alpine sub-region. It is part of the more extensive physiographic province of Europe known as the Hungarian Basin. This basin is one of the Danubian depressions surrounded by the Alps, Dinaric and Carpathian Mountains.

During Tertiary times it was covered by an extensive sea known as the Pannonian Sea. On top of the Tertiary deposits laid down in this sea there has been an accumulation of river gravels. These gravel deposits stand out between the river valleys as little-dissected, flat-topped plateaux. They are steppe-like in character.

Two sub-regions can be recognized within this physiographic division:-

The Danubian Plain
The Hills and Plains of Slavonia

The Danubian Plain Sub-region. The Danubian Plain provides the greatest extent of flat country within Yugoslavia. It consists of deposits of sandy and loamy materials which have been re-worked by wind action to give a great depth of loess soil. The area is marked by uniformity of relief over much of its extent.

The Hills and Plains of Slavonia Sub-region. This sub-region occupies the flood plains of the Drava River above Osijek, the flood plains of the Sava River, and the belt of hilly country which lies between these rivers and descends gradually in altitude from 3,000 feet in the west to 1,500 feet in the east. The relief of the hilly part of Slavonia has been carved in sedimentary rocks that partially bury ancient crystalline rocks. The resistance of these hard rocks to erosion causes them to stand out as areas of sharp relief. These isolated crystalline uplands are linked together by conspicuous ridges of lower but well-dissected Tertiary hill country.

Southern (Plateau) Yugoslavia

This region centres in the core of crystalline rocks known as the Balkan or Rhodope Massif. It also includes the southwestern extremity of the Carpathian Mountains. On the basis of structure it can be divided into two sub-regions: -

The Macedonian Plateau
The Serbian Mountains

The Macedonian Plateau Sub-region. This area is part of the Rhodope Massif which extends southward into Greece. It lies between the Vardar and Maritsa Rivers and is triangular in shape with its apex near Beograd. The Massif is composed of crystalline and metamorphic rocks and can be compared to the Hercynian Massifs of Central Europe.

The area is marked by a series of basins between faults which have a north-south alignment. These basins were formed in late Tertiary times and were filled by the waters of freshwater lakes. As the lakes receded the basins were left edged with terraces. The basins provide a corridor between Central and Southern Europe.

The Serbian Mountains Sub-region. This sub-region is part of the Carpathian Mountain system. It is thirty to forty miles wide and is known throughout most of its length as the Stara Slovenia. In the south, the mountains exceed 6,000 feet in height and are deeply cut by ravines. In the north the altitude is much lower, not exceeding 3,000 feet, and the surface is broken by the valleys of the Timak and its tributaries.

RIVER SYSTEMS AND LAKES

Drainage Basins

Yugoslavia is dominated by three drainage systems. Of the total surface area about 70% drains to the Black Sea via the Danube River system; 20% to the Adriatic Sea; and 10% to the Aegean Sea (Fig. 4).

Black Sea Drainage Basin. Only a small section of the Danube River flows within the frontiers of Yugoslavia. Of its many tributaries, only the Sava (584 miles) and the Morava (318 miles) are within the frontier along their entire length. All the tributaries dissect the heart of the mountain country. Those rivers flowing generally northward into the Sava, the Una, Vrbas, Bosna and Drina, show the strong influence of the Dinaric structure with their upper courses in parallel valleys aligned from southeast to northwest. The Morava and Timak, west and east respectively of the Serbian Mountains, flow directly into the Danube. Apart from main rivers, the Drava, Danube and Tisza, very little surface drainage occurs on the lowlands. This is typical of loess country because the porous loess is unfavourable to the development of widespread surface drainage.

The Adriatic Drainage basin. The occurrence of porous limestones along the Adriatic causes most of the water to circulate underground. The drainage shows a sparse, disintegrated pattern. Also, the abrupt descent from the Dinaric Mountains to the sea allows the few rivers that do exist to occupy short, steeply-graded valleys. Occasionally, streams occur as the result of springs which are fed from underground sources. The Neretva (142 miles), with its narrow valley, is the only river which breaks through the interior ranges to the sea. Three small rivers, the Srmanja (49 miles), the Krka (46 miles) and the Cetina (66 miles) cross a part of the Karst belt further north.

The Aegean Drainage basin. This area has a considerable amount of surface drainage. The Vardar River follows the western edges of the ancient crystalline Rhodope Massif. Its valley consists of broad high plains alternating with deep and often tortuous gorges. These narrow defiles offer considerable hindrance to a continuous routeway up the valley, and have presented great physical obstacles.

Lakes

Glacial Lakes. Lake Bohinj (1.7 sq. mi.) and Lake Bled (5.4 sq. mi.) are situated in the 'Alpine' country of Slovenia. These two bodies of water occupy basins which were scooped out by the Pleistocene ice sheets and dammed at one end by glacial moraines.

Tectonic Lakes. In the southwest on the Albanian and Greek frontiers lie Lake Ohrid (134 sq. mi.) and Lake Prespa (112 sq. mi.). Lake Dojran (16 sq. mi.) is also crossed by the Greek frontier. The lakes occupy basins primarily due to tectonic faulting, with the fault lines trending from north to south.

Karst Lakes. In the karst regions, there are many lakes that exist only seasonally. Occupying the floors of basins they are flooded for varying periods of the year. Lakes Skadar (Scutari) and Vrana are the only



two basins remaining perennially flooded. Lake Skadar, with an area of 146 square miles, is 144 feet deep. Lake Vrana (11 sq. mi.) is only 13 feet deep.

Oxbow Lakes. On the flood plains of the Sava, Drava and Danube the usual oxbow lakes are found where the meander loops are cut through.

CLIMATIC REGIONS

Yugoslavia may be divided into three climatic regions:-

Mediterranean Region
Modified Mediterranean Region
Danubian Region

While it is true, that variations will exist in places as a result of local conditions, the broad generalities will hold true for each of the regions (Fig. 5).

Mediterranean Region

A narrow strip along the Adriatic coast has a true Mediterranean climate - warm, dry summers and mild, wet winters. In winter the region is subject to the Bora wind which brings clear, cold weather in its wake. Consequently frosts are not unknown along this coast.

Modified Mediterranean Region

This region lies inland from the Adriatic Sea on the west and the Aegean Sea on the south. It is transitional between the Mediterranean region and the Danubian region. In the south the Vardar Valley permits the Mediterranean influence to penetrate at least 100 miles inland. The climate in this region differs from that along the coast in that there is year-round precipitation with an autumnal maximum and at least one month with a mean annual temperature below freezing. These variations are a result of increased elevation.

Danubian Region

The climate of this region is similar to that which prevails over much of Central Europe. There is year-round precipitation but May, June and October are the wettest months. Mean annual precipitation is under 25 inches. Summers are hot, with the mean July temperature at Beograd exceeding that of all major Canadian cities. Winters are relatively mild with only one month below freezing which is, nevertheless, considered cold for the latitude.

The climatic conditions for selected stations throughout the country are given in Tables 1 to 4. (see pages 23, 24).

VEGETATION REGIONS

As a result of extensive clearing in the nineteenth century and the habit of using woodland as sheep and goat pasturage, heavy forest stands cover only 16% of the land area of Yugoslavia (Fig. 6).

Four vegetation regions can be recognized in Yugoslavia:-



Mediterranean Woodland Region
 Central European Forest Region
 Central European Parkland Region
 Central European Grassland Region

Mediterranean Woodland Region

Vegetation of the Mediterranean type occurs along the Adriatic littoral and in the valley of the Vardar River. It corresponds closely to the Mediterranean Climatic Region. Up to elevations of 1,000 feet maquis is the characteristic vegetation type. It is in this area that the cultivation of the olive and vine is possible. Clumps of juniper trees predominate at elevations from 1,000 to 2,000 feet, while above that, broom and brushwood are the prevailing types of vegetation.

The Mediterranean vegetation extends inland up the valleys of the Neretva, Drin, and Vardar Rivers.

Central European Forest Region

This region includes the rest of Yugoslavia except for a small area in the northeast. The forest cover of the region is a mixed deciduous-coniferous forest. Oak is predominant in the area around the Morava River, pine and cypress in Macedonia and larch in the northwest. Only around Sarajevo are there extensive stands of forest where over 65% of the area is forested. Throughout the rest of the region forests cover less than 50% of the area with the amount decreasing eastward and southward to just over 5%.

Central European Parkland Region

This small region, which lies between the Sava and Drava Rivers, is transitional between the Central European Forests and the Grassland of the Danube Plain. Oak is the dominant type of tree. Much of the forest cover has been cleared and in few places does the forest account for more than 45% of the area.

Central European Grassland Region

On the Danubian Plain the natural vegetation is grass. Trees are not common, and it is only in a few areas near the boundaries of the region that they cover more than 5% of the land area. This vegetation region corresponds closely to the zone of black earth soils found in the valley of the Danube.

SOILS

Soils differ in important respects from region to region throughout the country. The following soil types have been classified according to the factors which control their origin.

Skeletal Soils

The formation of deep mature soils in the mountain districts of Yugoslavia has been hindered by the steep gradients and by the destruction of the forest cover in past centuries with resulting soil erosion. The

"skeletal" soils found here are either shallow layers of humus or of partially weathered rock surfaces.

Terra Rossa

Terra rossa or red earth predominates along the Adriatic seaboard. This soil is derived from limestone. It is granular in texture, low in nutritional value, and is rarely fertile.

Podsollic Soils

Podsollic soils have developed under the cool, humid climatic conditions of Central Yugoslavia. They are usually infertile.

Brown Earth Soils

Brown earths predominate in the east. Excessive erosion limits these soils to the plains and river valleys. The humus content of these soils is usually high, and they are productive soils.

Black Earth Soils

Almost continuous stretches of fertile black earth cover the Danube Plain. These soils are high in organic matter, rich and easily worked. Hence they are valuable for agricultural purposes. Alluvial deposits occur locally throughout the plain while a type of black earth occurs in the alpine meadows.

MINERALS

Yugoslavia is actively developing its mineral resources on which its industrial potential so largely depends. It is becoming increasingly important as a mining country and a source of raw materials. However, before a true appraisal can be made of its industrial geography, the amount, grade and location of its major minerals and power resources must be better surveyed (Fig. 7).

Coal

Yugoslavia is believed to have fairly extensive deposits of brown coal and lignite, but these have not been fully determined. Deposits of bituminous coal are small and no workable deposits of coking coal are known. The available coal is not only of poor quality but it is also in scattered deposits and is difficult to mine. In addition, the deposits are largely inaccessible by present road or rail facilities.

Petroleum and Natural Gas

The main deposits of oil and gas lie north of the Sava River in the Pannonian Basin. Seepages occur along two parallel lines, one line following the Mura and Drava Rivers to the Danube with a second line to the south. Oil shales occur in several parts of Yugoslavia, often accompanying highly bituminous lignite.

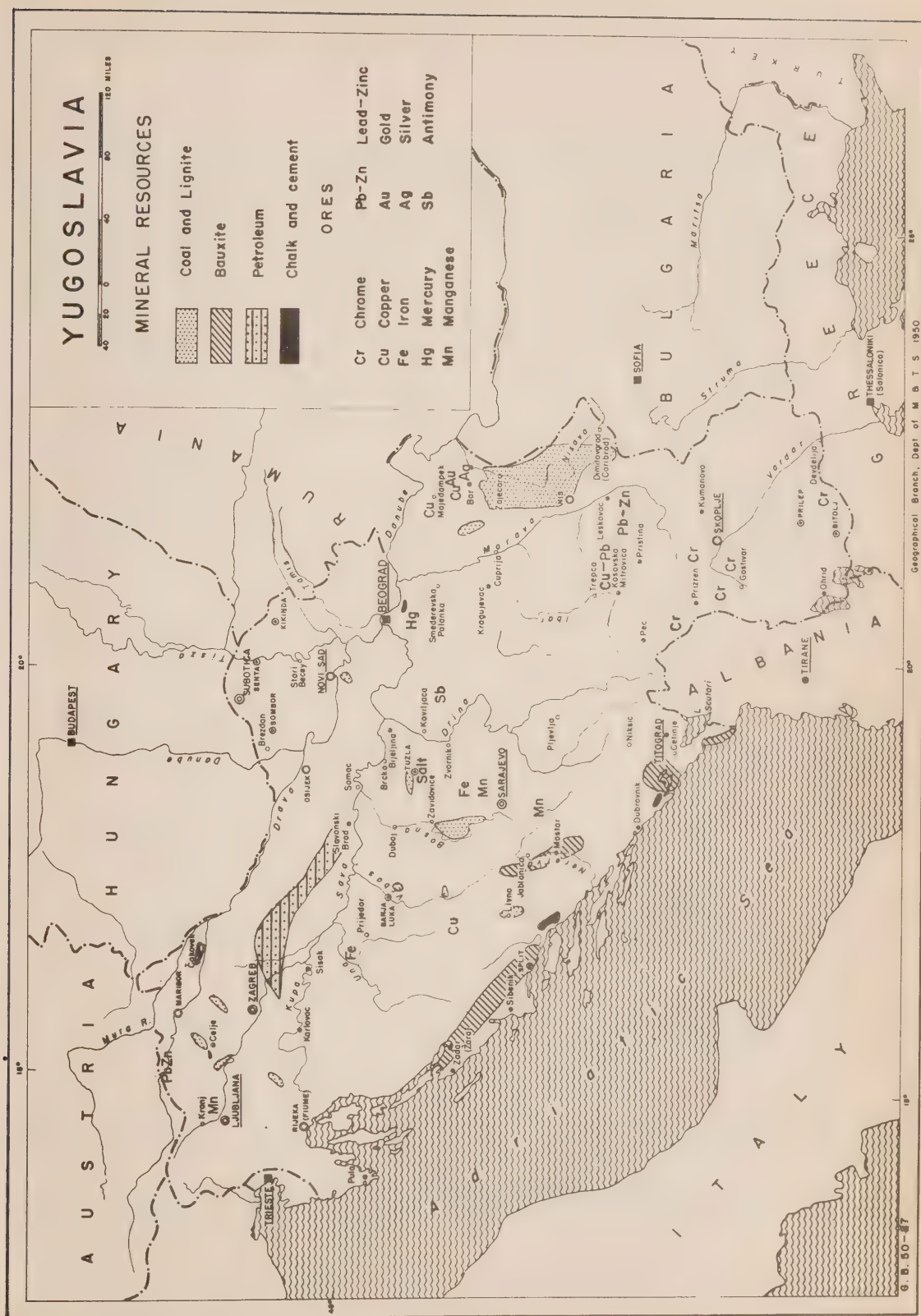


Fig. 7

Iron Ore

The two richest iron ore deposits are located in Bosnia, and are generally known as the Ljubija and Vares deposits. The first lies along the Sava River and extends from Stari Majdan on the Sava as far as Croatia to the northwest. The Vares deposits are 22 miles north-northwest of Sarajevo. The Ljubija ores occur in Carboniferous rocks and consist mainly of limonites and to a lesser extent siderites. The average iron ore content is between 43% and 53%. The Vares deposits are mainly hematite, passing to limonite and siderite at lower levels. The ore groups appear in irregular lenses in the Triassic formations.

In Croatia important deposits occur in Triassic formations near Slavsko Polje - Topusko and Vojisnice.

Non-Ferrous Metals

Copper. Copper is important in Yugoslavia. A high percentage of the deposits are in the highly complex mountains of Serbia, while a certain number are found in Bosnia and Croatia. The Bor mine is the largest single producer of copper in Europe. Recoverable amounts of gold and silver are found in the copper pyrites of this mine.

Lead and Zinc. Lead and Zinc occur together in widely scattered areas of Serbia, Slovenia and Bosnia.

Pyrites. The main occurrences of commercial pyrites are located at Majdanpek and at Trepca.

Gold and Silver. Though found in certain other widely scattered localities, the important occurrences are at the Bor copper mines.

Bauxite. This is the only mineral in which Yugoslavia is really important in the world picture. The main deposits lie in a belt extending along the Adriatic coast.

Chrome. More than 95% of this ore comes from the Skoplje area in Serbia. The deposits at Strpce are at such a high altitude that no mining is carried out during the winter months.

Antimony. There are deposits of antimony in Serbia, Bosnia and Slovenia, but only those of Serbia are mined. The highland area north of Krupanj, between the River Drina on the west and its tributary the Jadar on the east, is rich in antimony.

Magnesite. The deposits are mainly in northern Serbia, near Visegrad and Uzice, and in south Serbia, near Pristina and Veles.

Manganese. The ore occurs in many districts, though the only mines in operation are those at Cevljanovici, northwest of Sarajevo, and those of Stukovo and Jasnovo.

Molybdenum. A deposit of this mineral located in Serbia is expected to be in production by 1951.

TABLE 1

MEAN MONTHLY TEMPERATURES
(Degrees Fahrenheit)

Station	Lat.	Long.	Altitude (feet)	Years observed	J.	F.	M.	A.	M.	J.	J.	A.	S.	O.	N.	D.	Range
Ljubljana	46° 3'	14° 31'	1,050	...	30	37	42	48	58	64	68	66	60	51	41	32	38
Zagreb	45° 49'	15° 58'	538	64	32	36	44	53	61	67	71	69	62	53	42	35	39
-Osijek	45° 33'	18° 40'	302	29	29	34	43	52	62	68	72	70	62	53	42	35	43
-Beograd	44° 48'	20° 27'	453	42	31	34	44	52	62	67	71	70	63	54	43	35	40
-Sarajevo	43° 52'	18° 26'	2,090	19	31	32	42	49	56	62	66	65	59	50	42	34	35
-Split	43° 31'	16° 26'	420	63	45	46	51	58	65	73	78	77	70	62	53	47	33
-Nis	43° 19'	21° 54'	702	49	30	34	42	52	62	67	72	71	64	55	42	34	42
Ostri Pt.	42° 27'	18° 34'	689	25	48	48	52	57	65	72	77	76	71	64	56	51	29
Skoplje	42° 0'	21° 26'	804	8	29	34	45	53	62	69	73	72	66	55	43	34	44

TABLE 2

MEAN MONTHLY PRECIPITATION
(inches)

Station	J.	F.	M.	A.	M.	J.	J.	A.	S.	O.	N.	D.	Total
Ljubljana	2.9	2.7	3.9	3.9	4.3	5.7	5.5	5.7	5.5	6.6	4.5	4.1	55.4
Zagreb	1.8	1.8	2.2	2.8	3.1	3.9	3.2	3.2	3.4	3.8	3.1	2.4	34.7
Osijek	1.3	1.2	1.6	2.4	3.0	3.1	2.4	2.3	2.2	2.5	2.0	1.7	25.7
Beograd	1.3	1.3	1.4	2.4	2.8	2.9	2.4	2.0	1.7	2.2	1.9	1.7	24.0
Sarajevo	2.2	2.0	2.4	3.0	3.3	3.9	2.6	2.4	3.0	3.5	3.3	2.9	34.8
Split	2.9	2.4	3.0	3.3	2.7	2.2	1.2	1.6	2.9	4.4	4.0	3.6	34.2
Nis	1.3	1.8	1.5	2.2	1.9	2.7	1.7	1.8	1.7	2.5	2.4	1.4	22.9
Ostri Pt.	4.1	4.2	4.6	3.7	2.4	1.6	0.8	1.3	2.6	4.0	4.2	4.9	38.4
Skoplje	1.4	1.2	0.7	1.7	2.2	2.2	1.4	1.4	1.2	2.0	1.5	1.9	18.8

TABLE 3

MEAN MONTHLY NUMBER OF DAYS WITH FROST

(Note 0 + = Less than a mean of 0.5 days)

Station	J.	F.	M.	A.	M.	J.	J.	A.	S.	O.	N.	D.	Total
Beograd	18	16	6	1	-	-	-	-	-	1	10	15	69
Sarajevo	23	20	11	3	-	-	-	-	-	1	9	18	85
Split	1	2	-	-	-	-	-	-	-	-	-	2	5

TABLE 4

MEAN MONTHLY NUMBER OF DAYS WITH SNOWFALL

Station	J.	F.	M.	A.	M.	J.	J.	A.	S.	O.	N.	D.	Total
Beograd	8.0	6.0	3.0	0.2	-	-	-	-	-	0.1	3.2	5.9	26.1
Sarajevo	9.0	6.0	5.0	3.0	0.1	0.1	-	-	-	1.0	5.0	7.0	36.2
Split	0.3	0.3	-	-	-	-	-	-	-	-	-	-	0.6
Skoplje	4.7	3.5	1.0	-	-	-	-	-	-	0.6	1.4	2.1	13.3
Zagreb	9.1	6.1	4.1	0.6	0.3	-	-	-	-	0.7	3.2	5.3	29.4

Chapter 3

THE PEOPLE

The Federated People's Republic of Yugoslavia numbered 15,751,935 people on March 14, 1948¹.

TABLE 5

POPULATION FIGURES FOR THE CONSTITUENT REPUBLICS OF YUGOSLAVIA

<u>Republic</u>	<u>Males</u>	<u>Females</u>	<u>Total</u>
1. Srbija (Serbia)	2,004,655	2,129,761	4,134,416
(a) Vojvodina autonomous province	795,280	866,352	1,661,632
(b) Kosovska-Metohijska autonomous region	371,056	356,120	727,176
2. Hrvatska (Croatia)	1,757,195	1,991,844	3,749,039
3. Bosnia and Hercegovina	1,236,389	1,325,572	2,561,961
4. Slovenia	652,622	736,462	1,389,084
5. Macedonia	584,180	567,874	1,152,054
6. Crna Gora (Montenegro)	178,161	198,412	376,573
Total	7,579,538	8,172,397	15,751,935

Source: Census of Yugoslavia, 1948.

In 1940 the population of Yugoslavia was estimated at 15,811,000, and for 1946, 14,800,000². Demographically then, Yugoslavia has recovered rapidly from its war losses. This is due, in part, to the fact that Yugoslavia is a land of relatively young people and that its birth rate is one of the highest in Europe.

ETHNIC GROUPINGS

Distribution of Ethnic Groups

Within its boundaries Yugoslavia contains a number of cultural or ethnic groups. The differentiation of the people into the various ethnic groupings is based primarily on two criteria - language and religion. The chief languages spoken are Slavic in origin - Serbo-Croatian, Slovenian and Macedonian. Nevertheless, large sections of the population speak Magyar, Rumanian, Albanian or Turkish.

Language groups. The distribution of the language groups is shown in Fig. 8. Serbo-Croatian is the dominant tongue spoken in Serbia, Bosnia and Hercegovina, Croatia and Montenegro. Slovenian is the dominant language

¹Census of Yugoslavia, 1948.

²United Nations Yearbook. Lake Success, 1949.

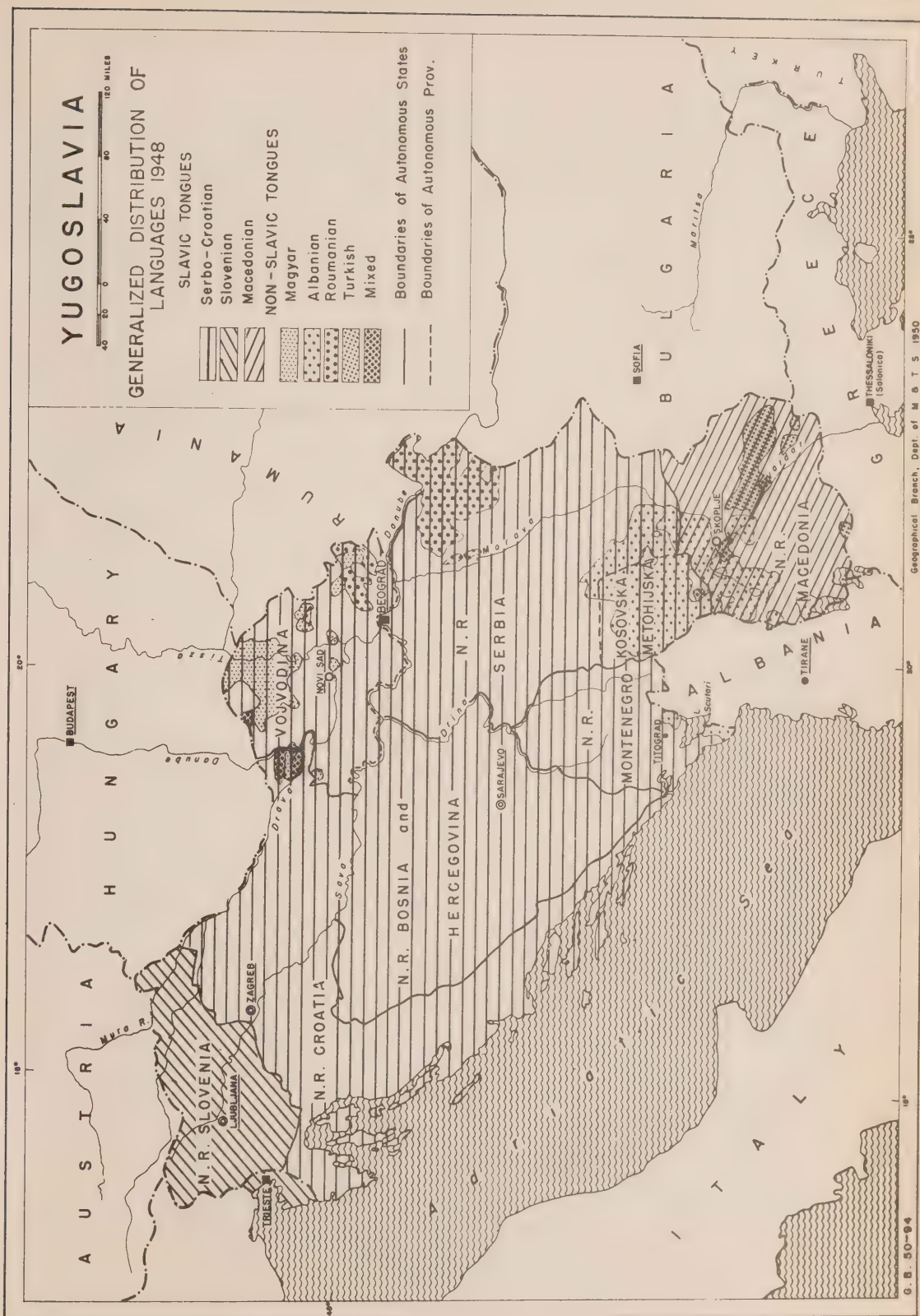


Fig. 8

in Slovenia. In Macedonia, Macedonian is the dominant tongue, but there are large numbers of Albanian, Turkish and Serbo-Croatian peoples in this particular region. The linguistic heterogeneity of this region is derived from the fact that it is traversed by the Vardar corridor. During the period of Turkish control large numbers of Muslim Albanians and Turks, as representatives of the ruling power, took up residence in the area amongst the Macedonian and Serbian peasantry. A number of Serbian 'colonists' also took up residence in the area after 1918. Large Magyar and Rumanian speaking minorities are to be found in the Vojvodina autonomous province.

The Vojvodina province lies within the fertile Danubian Plain. There are few natural barriers in this region, hence a great intermingling of ethnic groups has resulted. Islands and enclaves of one culture group within another can be found almost anywhere within the basin. There are approximately 250,000 Rumanians and 500,000 Magyars. The one-half million Albanians are to be found chiefly in the Kosovo-Matohijska autonomous region and in adjacent Macedonia, the region bordering on Albania. Prior to the recent war there were about 500,000 Germans living in Yugoslavia, the majority in the Vojvodina. These Germans came originally from Swabian mining and trading towns established amongst the peasant peoples by the Central European monarchs in the late Middle Ages. Today there are none. The Italian population of Zara, Rijeka and Istria, numbering about 140,000, migrated to Italy in 1946-7.

Religious groups. Three major religious groups exist within the borders of the Yugoslavian Republic - Orthodox, Roman Catholic and Islam. The 1931 Census gives the following breakdown of the religious groups in a population of 13,934,038¹ - Orthodox 49.9%, Roman Catholic 37.4%, other Catholics 0.46%, Protestants 1.8%, Muslims 10.9%, Jews 0.5%. The distribution of areas dominantly Orthodox, Roman Catholic or Islamic is shown in Fig. 9. The Roman Catholics are to be found mostly in the northern and western parts of Yugoslavia. These were the sections of the country which had closest contacts with Rome through the Sava corridor. They were also the regions that were ruled for a long time by the Roman Catholic Austro-Hungarian Empire. The Orthodox peoples are to be found in the area which had strong contacts with Byzantium, the seat of the Orthodox faith - the areas along the Morava-Vardar and Morava-Maritsa corridors. Between the nuclei of Roman Catholic and Orthodox faiths centred on the corridors there is a zone of intermingling - a region where the two sects met, and often clashed. The greatest number of Muslims is to be found in the areas which were under Turkish control, particularly in the Vardar corridor in Bosnia and in the areas inhabited by the Albanians. Today the Protestants and Jews are no longer a part of Yugoslavia's religious pattern. The Jews disappeared as a result of German atrocities during the war and by emigration to Israel in the post-war period. The Protestant region coincided very closely with those areas inhabited by the Germans on the Pannonian Plain. These ethnic Germans were driven out, killed or deported during the last stages of the recent war. It can be presumed then that the elimination of the Germans meant also the elimination of the Protestants.

1

The 1931 Census gives statistics for Yugoslavia within its pre-1940 borders. Istria is excluded.

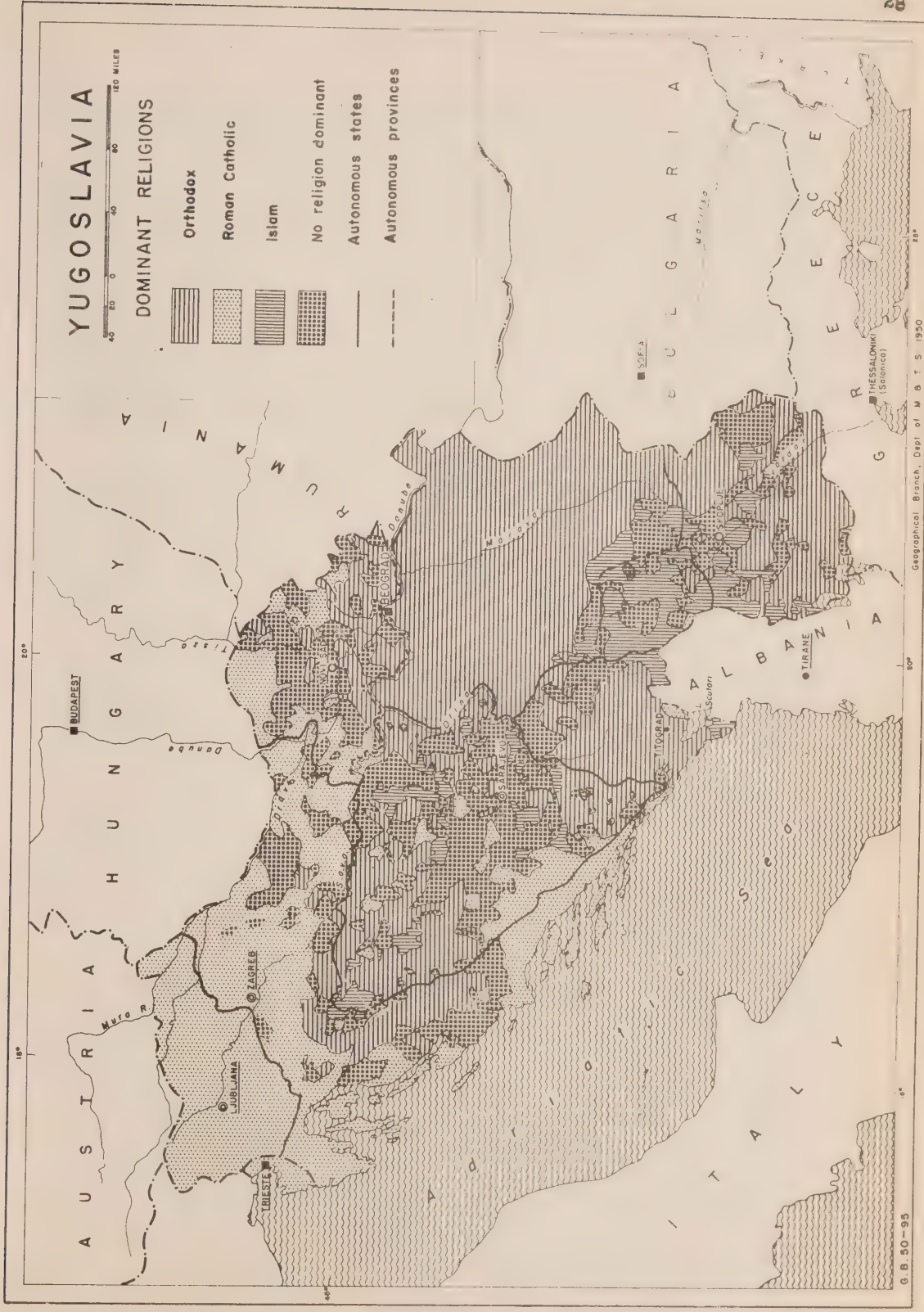


Fig. 9

Historical Basis for Distribution of Ethnic Groups.

The distribution of these ethnic groups is, of course, the product of the setting and history. It provides a key to the understanding of the political difficulties within Yugoslavia and is a distinct aid in any study of the relationships of Yugoslavia to its neighbours. The first peoples recognized by history as occupying the Balkan Peninsula were the Illyrians and the Thracians. Greek trading colonies were established all along the Adriatic shore of the peninsula. Recognizing the importance of the Pear Tree Pass to Northern Italy the Romans conquered the Istrian area in the year 9 A.D. and in time, because of expanding trade, conquered most of Illyria (the Dalmatian physiographic province), Thrace, Pannonia (the plain of the middle Danube) and Dacia (the lower Danube Valley). The peoples were rapidly Romanized and a number of the Roman Emperors were born in the region.

The division between the Western Roman Empire ruled from Rome, and the Eastern Roman Empire ruled from Byzantium was made in Illyria. Although, in time, both Rome and Byzantium lost political control of the Balkan Peninsula, the religious hierarchies which developed in both these cities maintained their respective spheres of influence and conflict. This early division was entrenched by time and made itself one of the important factors in Yugoslavia's history up to 1945.

From the fourth to the seventh centuries the corridors through Yugoslavia witnessed a procession of peoples migrating from the interior of Europe to Western Europe, particularly to Italy. Vandals, Ostrogoths, Visigoths, Huns, Lombards and Avars followed each other in rapid succession. Under their military onslaughts the Roman Empire cracked and finally split asunder.

Between the years 582 and 610 A.D. Slavic people began to enter the Balkan Peninsula, moving up the river valleys. Although not as skilled in war as the peoples who had preceded them through the corridors they were able successfully to drive the remnants of the Illyrians from the lands. The Illyrians took refuge in the rugged mountains of Epirus (Albania). The modern descendants of these early inhabitants are the Albanians.

The Slavic peoples who gradually filled the Balkans were separated from their kindred peoples in Bohemia and Poland first by the Avars and then the Magyars. These two war-like nomadic peoples occupied the Hungarian Basin (the Pannonian Plain) late in the seventh century. The Southern Slavs in time were further divided from the main Slavic body by the development of local dialects in the different basins - Slovenian, Croatian, Serbian. The Slavs who had settled in Bulgaria were conquered by the Bulgars during the eighth century. But, as is often the case, the conquering tribes were soon absorbed by the numerically superior conquered peoples. The language spoken by this new people was the tongue of the Slavs, modified by the original Bulgarian. This Slavic language is known today as Bulgarian.

The Slovenes occupied the upper portions of the Sava and Drava Valleys in the foothills of the Alps. For almost two hundred years they

were subject to the Avars. During the period 791-6, Charlemagne conquered the lands and broke the power of the Avars. The Slovenian lands were incorporated into the eastern marches of Carinthia and Carniola, ruled by German dukes and considered part of the Holy Roman Empire.

The Croatians filled the valleys of the middle Sava and Drava Rivers and penetrated along the coast of the Adriatic. Over the years they developed from a loose tribal organization speaking a common language into an independent kingdom. In 1102 the last king of the native Croatian dynasty died and the kingship was given to the King of Hungary.

The Serbian tribes occupied the remainder of Yugoslavia south of the Danube. For a time the Serbs were conquered by the Bulgars but eventually developed an independent kingdom whose areal extent, in common with kingdoms throughout Europe, fluctuated with the almost incessant wars with neighbouring peoples. The orientation of the Serbs was towards Byzantium for they dwelt astride the corridors leading to the southeast.

In 1219 under Stefan I the Serbs became Greek Orthodox in religion. Byzantium, however, in return for this maintenance of faith in Greek Orthodoxy, recognized the autonomy of the church in Serbia. This national church became the rallying ground for the Serbian peoples under the later Turkish domination. The Slovenes and Croats, living in lands whose rulers acknowledged the religious rule of the Pope, became staunch Roman Catholics.

Under the rule of Stefan Dusan, (1331-1355), the Serb kingdom reached its greatest extent. Shortly after Stefan Dusan's death the Turks invaded Europe. Driving up the Vardar corridor they destroyed the power of the Serbian kingdom at the Battle of Kosovo (1389). By 1459 the Turks had completely conquered Serbia. After countless battles with the Hungarians, Austrians, Poles, Bohemians and other peoples of Central Europe, the Turks were held to the line of the Sava-Danube. In the course of the wars the forces fighting the Turks were often aided by Serbian volunteers. Usually, after the battles were over and a temporary peace existed large numbers of Serbs would migrate across the Danube from the Turkish-occupied lands to the Vojvodina district. In 1691, 37,000 Orthodox Serb families, led by the Serbian Patriarch Arsenius Tcheinojevich of Ipek migrated from the basins about Kosovo and Pec to the Banat. The Serbs were invited to settle in the Banat by Emperor Leopold I of the Holy Roman Empire, who desired to garrison people along the Turkish border. The region vacated by the migrating Serbs was immediately filled by Albanians. During the time of Turkish domination the Albanians and a large number of Serbs living in Bosnia accepted Islam. The majority of the Serbs, however, clung to their Orthodox religion. Turkish peoples settled in the Vardar Valley from Thessaloniki to Skoplje.

This pattern of religious distribution lasted up to 1945 - the Slovenes and Croats were Roman Catholic, their writing being in Latin script; the Serbs were Orthodox and used the Cyrillic alphabet; the Albanians, Turks and some of the Bosnians were Mohammedans.

The valley of the Vardar until its conquest by the Turks was held alternately by Serbs, Bulgars and Greeks. During this time and during the

time of the Turkish domination a distinct culture group, the Macedonians, developed, speaking a Slavic language derived from the Bulgarian.

DISTRIBUTION OF POPULATION

The majority of the people of Yugoslavia are concentrated in the river valleys. The densest population (over 200 per sq. mi.) is to be found along the main valleys of the Danube, the Sava, Drava and Tisza Rivers. A second belt of dense population occurs along the Morava-Vardar corridor. The areas of Karst and the rugged mountains (the Dinaric physiographic provinces) and the Rhodope Massif have a relatively low population density (usually less than 75 per sq. mi.). Population in these regions is confined to the more fertile river valleys such as the Timak River and to the basins of the Karst (Fig. 10).

TABLE 6

PEOPLE GAINFULLY EMPLOYED, 1931

<u>Category</u>	<u>1931 Census</u>		<u>1921 Census</u>
	<u>Number</u>	<u>Percentage</u>	<u>Percentage</u>
Agriculture	5,083,160	((
Fishing	5,399	(76.3	(78.9
Forestry	10,329	((
Mining and Industry	717,002	10.8	9.9
Commerce and Finance	169,964	2.5	(
Communications	102,385	1.5	(4.3
Public Services, Liberal)	(4.6	3.8
Professions, Armed Forces)	(305,770		
Others	288,606	4.3	3.9
Total	6,676,615	100%	100%

Source: Census of Yugoslavia, 1931.

According to the 1931 Census over three-quarters of the gainfully occupied people of Yugoslavia were engaged in agriculture. Table 6 shows the breakdown of employment in 1931.

The changes in Yugoslavia's internal economy as a result of the Five Year Plan of 1947 have caused a decrease in the total number of people employed in agriculture, and have substantially increased the numbers in mining, industry, and communications. In 1949, the number engaged in industry was 909,000 compared to 456,000 in 1946, and only 347,000 in 1931. Since 1945, the tendency has been for the urban population to grow as a direct result of the government's policy of industrialization. Prior to the war less than 5% of the people lived in organized cities of over 5,000 people.

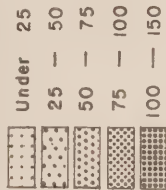
Most of the agricultural population, however, lives in nuclear villages. Some of these villages have more than 5,000 people in them,

YUGOSLAVIA

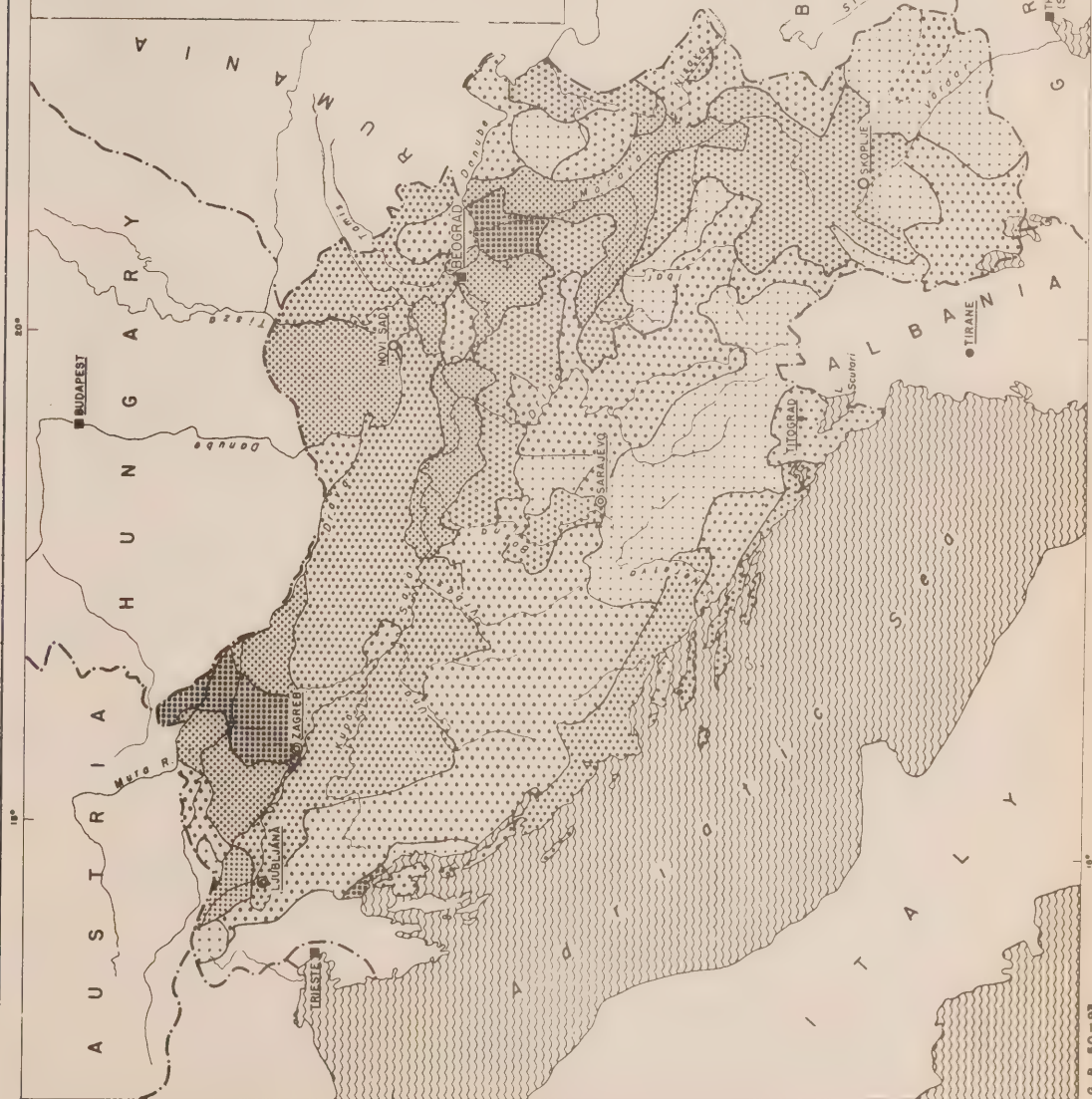


POPULATION DENSITY 1931

PEOPLE PER SQUARE MILE



After A. Melik Bulletin de la Société
de Géographie de Ljubljana, 1940



especially those of the Vojvodina. (Almost half of the population of Subotica (112,551 in 1948) is engaged in agriculture.) The collectivization of the agricultural land will not change the pattern of population distribution appreciably since the majority of the people already live in nuclear centres.

Principal Cities

Only 10 urban centres in Yugoslavia have more than 50,000 people. Six of them are capital cities.

1

Beograd, (388,246) is the capital of all Yugoslavia and of the Republic of Serbia. (The population figure is for greater Beograd and includes the suburban centres of Pancevo and Zemun.) The site of an important communications centre since prehistoric times, the city lies at the junction of the Sava and Danube Rivers (on the south bank of the Danube and east bank of the Sava). Beograd is the communications and cultural centre of Yugoslavia. It is, as well, a great commercial centre with international significance. Industry is concentrated in the Zemun area. Aircraft, machine tools, medical instruments and glass, as well as consumer goods, are manufactured.

1

Zagreb, (290,417), is the second city of Yugoslavia. The city lies athwart the Sava Valley route to Italy. The old capital and cultural centre of Croatia and the Savska banovina of pre-war Yugoslavia, it still fulfills those functions for the new Republic of Hrvatska. It has been the seat of a Roman Catholic bishopric since 1093. In the markets of Zagreb, the products of the mountains meet the products of the plain. Because of its position on one of the corridors traversing Yugoslavia, Zagreb is a major road and rail centre. It has considerable commerce and industry as well. The major industries of the city are pharmaceutical products and glass.

1

Osijek, (50,398), situated on the Drava River, has been the site of a river crossing since Roman times. It is a link between the fertile Srem (Syrmia) and Pannonian Plains. The city was the capital of the former province of Slavonia in the Austro-Hungarian Empire.

1

Novi Sad, (77,127), lying along the Danube River in the middle of the fertile Pannonian Plain, is the capital of the autonomous province of Vojvodina. Although founded in the seventeenth century it became the cultural centre of the Serbs living in the Vojvodina, under Hungarian rule. The city is a railway centre and the home of an electro-chemical industry.

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Subotica, (112,551), is the largest city in the Vojvodina. It is an important commercial market and industrial centre despite the fact that about half its population is engaged in agriculture. Its food-processing industries are closely tied to the agriculture of the surrounding region.

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Ljubljana, (120,994), the capital and cultural centre of Slovenia, lies along the folk-way of the Sava River and the Pear Tree Pass. A route

also leads northwards from the city to Vienna. The city was founded as a Roman colony and became the capital of the former Austrian province of Carniola. Today it is one of Yugoslavia's most important industrial and commercial centres, producing electrical machinery and appliances.

Maribor, (66,498)¹, is situated where the route from the Pear Tree Pass and the upper Sava Valley to Vienna crosses the Drava River. It is an important agricultural centre and has an electro-chemical industry.

Rijeka, (72,120)¹, is the Yugoslav name for the city of Fiume on the Adriatic Sea. It combines the former border cities of Fiume (Italy) and Susak (Yugoslavia). Rijeka was the chief port of the Hungarian sections of the Austro-Hungarian Empire. When the boundary revisions following the war of 1914-18 were made, the hinterland of the port was cut off. In 1919 the city was seized by the Italians under D'Annunzio. When Istria was incorporated into Yugoslavia in 1945 some 28,000 Italians migrated from the city to Italy. Rijeka is today the chief port of Yugoslavia.

Sarajevo, (118,158)¹, is to be found on the Miljacka River, a tributary of the Bosna where it traverses a broad basin in the mountains of Bosnia. It was the capital of the Austro-Hungarian provinces of Bosnia and Hercegovina, and the pre-war Drinska banovina. Today it is the capital of the Republic of Bosnia and Hercegovina. Sarajevo is a religious centre for the Orthodox, Roman Catholic and Islamic faiths. The city is the chief commercial centre for the Bosna Valley. It was here that the Archduke Ferdinand of Austria was assassinated in 1914, precipitating the First World War.

Skoplje, (91,557)¹, lying athwart the Vardar River, is the capital and largest city of the Macedonian Republic. Because it is on one of Europe's major folk-ways Skoplje dates from early Roman times as a communications centre. Since 1918 it has been the tobacco market for all of Macedonia.

Pristina, (19,882)¹, is the capital of the Kosovska-Metohijska autonomous region. It is situated on the east side of the Kosovo Plain.

Titograd, (12,206)¹, the capital of the Republic of Crna Gora (Montenegro), lies in a broad basin near the Albanian border. The name of the city was changed from Podgorica to Titograd in honour of Marshal Tito in 1946. The city was almost completely destroyed during the recent war, and, like many towns and cities of Yugoslavia, is being rebuilt.

¹ Census of Yugoslavia, 1948.

Chapter 4

ECONOMIC GEOGRAPHY

INTRODUCTION

An analysis of the economic geography of Yugoslavia involves a three-fold problem. Initially, the physical resources of the land and water areas occupied by that state must be examined and assessed. Secondly, the pre-war state of the development and degree of utilization of the resources must be considered. In this phase of the analysis, note must be made of the destruction brought upon Yugoslavia's economy during the Second World War. Thirdly, a survey of post-war economic recovery and reconstruction must be made, particularly as it is related to the country's five year development plan which terminates in 1951. In this third phase of the analysis, particular attention will be focused upon the re-orientation of Yugoslavia's trade with the countries of Western Europe, and North and South America.

The pattern of physical resources, and the distribution of economic activity are conditioned by the geographical divisions of the country; the plain of the Danube; the upland and mountainous areas in western, central and southern Yugoslavia; and the Adriatic littoral. Each of these areas has a homogeneity of climate, topography, geology and soils, which reflects itself in a typical economic complex.

The plain of the Danube is ideal for arable farming. The even topography assists the mechanics of ploughing and reaping. Black chernozem soils north of the Sava River, and brown earth soils in the plain of the Morava Valley, together with relatively long, hot, dry summers produce an ideal environment for cereal growing and associated live stock breeding. Thus, historically, agriculture has dominated the economic activity of this entire area. Because conditions are also favourable for the development of transportation and settlement, the greatest concentration of population, and resulting urbanization and industrialization has occurred here.

West and south of the Danube Plain lies the upland area which extends from the Alps in the northwest through the Dinaric Mountains which parallel the Adriatic, to the high peaks of Montenegro in the south. The mountainous area in Serbia and Macedonia, although of different geological structure, lends itself to comparable economic utilization. Mining is of economic importance in both these areas, together with forestry, and the associated forest industries. The mountainous character of the land limits agricultural cultivation to the river valleys, and grazing to the upland meadows. Throughout the entire mountainous and upland regions inadequate transportation facilities have, to a large extent, hindered the development and utilization of mineral and forest resources.

The third major region of economic activity lies between the abrupt edge of the Karst and the Adriatic Sea, and includes the fringe of coastal islands. Fertile red earth (terra rossa) soils and a Medi-

terranean climate combine to produce an environment which is ideally suited to intensive agriculture in the form of vine culture and fruit growing. Despite the length of the coastline, fishing has remained a relatively minor activity as good fishing grounds are not available in the Adriatic Sea. Deep inshore waters, and many long-shore channels offer conditions ideally suited to coastal navigation and the development of ports. Trade through these ports had, however, been handicapped by the limitations of the hinterland and the inadequacy of transportation facilities from the interior plains.

With these strongly contrasted regions Yugoslavia has found it difficult to become an economic unit. Isolation in the highland areas, and political instability in the Danubian region, have prevented any degree of integration of activities. Frequent occupation of the productive land by foreign invaders, pressure of population on the land resources, lack of capital, and insecurity associated with frequent wars, have combined to hinder modernization.

Destruction of Yugoslavia's productive facilities during the Second World War was very great¹. There were 1,706,000 persons killed, of which 1,400,000 were civilians. Agriculture was severely handicapped by heavy losses of live stock and equipment, and much damage was inflicted upon land and buildings. All operating mines were damaged to some extent; 53 were totally destroyed². Loss to industry was estimated at one-third of pre-war capital value. The most serious damage of all was that inflicted upon communications. Over half of the track mileage and rolling-stock was destroyed. All of the 13 long, steel bridges over the Danube, Sava, and Drava Rivers were destroyed. Almost all the motor vehicles (56,000) and bicycles (2½ million) were removed, and over half of the roads of the country were destroyed. Yugoslavia lost over three-quarters of its Danube River fleet, and over half of its merchant fleet.

The period of initial recovery after 1945 was met with the assistance of UNRRA, but, as 70% of the deliveries consisted of food, Yugoslavia had to restore its own agricultural and industrial productivity to ensure long term reconstruction. The reconstruction program that was devised had three aspects - economic, social, and political. The economic aspect of the policy involved a concentration of heavy industry, power and transport, as the basis for light industry and agriculture. A state planning commission set to work to lay out a Five Year Plan for the development of the national economy. This plan, inaugurated in 1947, formulated annual objectives which were to culminate with a set goal for 1951. The government has also taken over many of the industries of the nation. Land reforms constituted an important phase of the social aspect of the plan. A limitation of size of land-holding and redistribution of the excess land was begun in 1945. Co-operatives have been encouraged and state-controlled farms have been set up in the more agriculturally productive regions.

¹ Inter-Allied Reparations Conference, Yugoslav Government Report in "Yugoslavia" by J. Morris. p.70.

² Morris. Yugoslavia. p. 71. p. 72.

A notable recent factor which is affecting the planned reconstruction of Yugoslavia is the forced re-orientation of trade from the countries of the Cominform to the Western bloc. Although current production and trade statistics are not available for all phases of the economy, considerable significance must be attached to the effect that this re-orientation of trade is having upon Yugoslavia's economic rejuvenation.

AGRICULTURE

Yugoslavia has been, historically, and still is an agricultural state. Before 1939, 78% of all workers were agricultural. However, due to the small size of the individual holdings, the over-population of the land, and the lack of proper tools and scientific knowledge, much of the production was on the subsistence level. Before the Second World War, 5% of the population accounted for 58% of the production and 60% of the marketing¹. Only slightly more than 10% of the farms were larger than 25 acres, while nearly 70% were less than half that size. As a result, the land reforms begun in August 1945 and associated with the Five Year Plan are having a marked effect upon agriculture. With the limitation of holdings to a maximum of from 50 to 90 acres of arable land, depending upon fertility², and with the establishment of maximum holdings of 112 acres (including forest), almost 2 million acres were redistributed to the peasants. Various forms of co-operatives were established for both marketing and consumption, and large state farms were set up in the more productive areas. By November 1949, 20% of the arable land (5.7 million acres) was either farmed co-operatively or operated by the state. The proportion of the land socially operated is much higher in the Danube Basin, in September 1949, 65% of the Vojvodina was co-operative, or state farmed.

Of pre-war Yugoslavia's 59.5 million acres, 36.0 million were devoted to agricultural purposes. Considering the extent of mountainous area within the country the area devoted to farming is large. One-half of the 1938 agricultural area, or 18.7 million acres was tilled. After hostilities ceased the tilled land rapidly increased from 11 million acres in 1945 to 16 million in 1946. The goal for the Five Year Plan is 18.5 million acres, but an additional 2 million acres will be reclaimed by drainage and irrigation. By 1949, 247,000 acres of land had been protected from flood in the productive Vojvodina region³. Plans for the draining of Lake Scutari in Montenegro were curtailed by a disagreement between Albania and Yugoslavia; but, by building a 25-mile long embankment through the lake, the Yugoslavs plan to drain 40,000 acres of land on their side of the border without affecting the water-level in Albania. With the completion of the Danube-Tisza-Danube Canal in the Vojvodina an estimated 1.2 million acres will be drained and will be made available for growing cotton, rice, and fodder crops.

¹ Yugoslav Fortnightly, Oct. 19, 1949. p.4.

² Morris. Yugoslavia. p.88.

³ Yugoslavia. Yugoslav News letter. March 10, 1950.

Land Utilization

The general pattern of land utilization in Yugoslavia shows a close adaptation to conditions of terrain, soil and climate, and as such corresponds to the general regions of economic activity described at the beginning of this chapter. The most productive and best cultivated areas lie almost exclusively on the northern plains and in the adjoining valleys of the Drava, Sava, and Morava River systems where between 60% and 80% of the total agricultural area is devoted to field crops (1931). Elsewhere, the mountainous character of the surface generally restricts arable farming to less than 40% of the total agricultural area; in Montenegro and parts of the Karstland the percentage falls below 10%. There is also marked correlation between the occurrence of soil types and productive regions. Large areas of the Karstland in southern Slovenia and in Croatia are practically without soil as a result of the permeability and solubility of the limestone rock, together with the heavy rainfall. Only on the basins or the valley floors are the soils found to be worth cultivating. In the Alpine districts of Slovenia, in southern Bosnia, Hercegovina, Montenegro, and in most of central and southern Serbia, the crystalline character of the prevailing rock types, combined with the rapid run-off drainage resulting from the highly dissected nature of the surface, leads to a sparsity of good soils except in those valleys where accumulation has been possible. In contrast to the podzolic soils of these areas the northern plains and valleys are generally covered with soils of the fertile chernozem type which readily lend themselves to arable farming.

Because Yugoslavia possesses a wide range of climatic conditions, a wide variety of crops can be grown. Climatic conditions similar to those in Central Europe are experienced in the northern plains, where conditions are ideal for growing such crops as maize and wheat. The mountainous regions to the west and south of the plain have longer, more severe winters, and they lack extensive fertile soils, with the result that they are either forest-clad, or are given over to poor pasture. The Adriatic littoral with its Mediterranean climate of long, hot, dry summers, and mild, moist winters, is characterized by vineyards and orchards on the fertile soils, and rough pasture for sheep and goats on the brushwood uplands.

Crops

The Cereals. Maize and wheat are by far the most important crops produced in Yugoslavia. In 1938, 83% of the total arable area of the whole country was devoted to these crops. Of the 14.9 million acres, and 8.8 million tons of field crops produced that year, 12.1 million acres and 7.7 million tons were maize and wheat. Because of its more exacting demands on environment, maize production is more restricted than wheat; the area of densest maize cultivation is in the Vojvodina and in the Sava Valley. Production in 1947, still somewhat below the pre-war average, was 4 million tons. The Vojvodina also produces the greatest wheat yield. The autumn "Banat" variety is the most widely grown. The pre-war production of 2.5 million tons (on 5.3 million acres) had not been reached in 1946 when production was only 1.8 million tons. The incidence of summer rainfall is the key to the annual grain production.

Relative to maize and wheat all other cereals are unimportant. Oats, barley and rye, however, have local significance chiefly as fodder crops, where wheat and maize will not grow satisfactorily. The total area under these minor crops is about one-sixth of that under all cereals, and their production has been less than one-eighth of the total production of cereals. "Napolica" (a mixture of wheat and rye), bearded wheat, millet and rice, are of only minor importance. Production of rice has risen with increased acreage in the lowlands of Hercegovina, Dalmatia, and Montenegro, together with the recently drained flood plains in the Vojvodina.

Garden Crops. These crops are important since they supplement the income of a large number of peasants, but the area devoted to their production is small. It is only near the larger urban centres that commercial surpluses are produced. In 1938 the six leading garden crops were potatoes, haricot, beans, tomatoes, peas, broad beans, and lentils. In that year 0.77 million acres were devoted to the production of 1.8 million tons of garden crops, of which potatoes composed 1.7 million of the tonnage.

Fruits. Climatic diversity facilitates the growth of a wide range of fruits. All types of fruit-trees that can be grown in Europe, except date palms, are grown in Yugoslavia. However, because of poor transportation facilities, fruit-growing is only of local importance. Few fruits are exported. Production of temperate fruits (plums, apples, pears, walnuts) is concentrated in Serbia and east Bosnia between the Bosna and Morava Rivers. The sub-tropical fruits, olives and citrus fruits (oranges, lemons, citrons), figs and almonds, are confined to the region of Mediterranean climate on the Adriatic coast. Vine-culture occupied 540,000 acres in 1938. Although few districts do not grow grapes on some scale there are three important areas for viticulture - the northeast in the Drava, Danube and Morava Valleys; the Slovene district known as Slovenske Gorice between the Drava and Mura Rivers; and Dalmatia, particularly at Sibenik, Split, and on the Island of Hvar.

Industrial Crops. Tobacco is the most important of the industrial crops. Half of the area devoted to tobacco is in the Vardar Valley in Macedonia, while considerable production occurs in Hercegovina. In 1947 the area cultivated was three times the pre-war area, but the crop is produced largely as a side-line and not as a specialty. Sugar beets are grown solely in the Danubian Plain north of the Sava River. The production of the textile fibres, hemp, flax and cotton, is important when viewed in the light of the national economy. Hemp-growing is widely distributed, but the northern plains lead in production. Flax is cultivated on a lesser scale in scattered districts of the Sava Valley. Before the Second World War only 5% of the country's cotton needs were produced domestically, but by 1949 cotton acreage had increased tenfold, to 130,000 acres. Expansion in cotton-growing is limited, however, since only in Macedonia are the climatic conditions satisfactory. Requirements of oleaginous plants - rape, sesame and poppy - are met by the production of the northern plains.

Fodder Crops. The production of fodder crops associated with animal-rearing is of great importance in Yugoslavia. Over 3 million

tons of meadow hay are produced on 4.5 million acres with a concentration in Slovenia, Croatia and the highlands of Hercegovina and southwest Serbia.

Live Stock

Animal-rearing. This is an integral part of the peasants subsistence farming and is one of the few ways for the farmer to earn a cash income. Cattle, the most important of these animals, are relatively evenly distributed throughout the country. Most of the cattle are found in a centrally located zone which follows a northwest-southeast alignment from Slovenia to the upper Vardar Valley. During the summer they are pastured on summer meadows in the mountains while the valleys are being cultivated; in the winter they are driven down to the lowlands. This annual movement is most marked in Slovenia and northern Croatia, but is common throughout the Dinaric region. Horses are the major source of power on the farms and provide an important means of transportation in many parts of the country, especially north of the Sava River where about 50% of the farm-horses are to be found. Pigs, highly localized in maize-producing regions of Slovenia, Croatia and the Vojvodina, are raised for lard rather than bacon or pork. Sheep and goat rearing is important on the marginal lands of the Vardar and Morava Valleys as well as on the poor pasture of the Karst-land. As with cattle rearing, transhumance, or the migration from winter to summer pasture, is practised, except that the sheep are not stall-fed during the winter. Poultry raising, (chicken, ducks, geese, and turkeys) is also important to the peasant farmer as a source of cash income.

FORESTRY

About 19.4 million acres, or 32.7% of Yugoslavia is under forest cover. The greatest portion (70%) of this forest is unmanaged. The distribution of tree species is primarily a reflection of the distribution of the natural vegetation. The most thickly forest-covered areas are in Slovenia and Bosnia, while the most thinly forested region is in the northeastern cultivated plains.

Among the conifers, Aleppo pine, Austrian pine, Scots pine, silver fir and Norway spruce are economically valuable. Silver fir, found in mixture with birch and spruce in Slovenia and the mountains of Croatia and Bosnia, is the most valuable timber tree.

The most important deciduous timber-producing trees are beech, and pedunculate oak. Although beech accounts for a large proportion of the total timber yield it is commercially far less valuable than either the conifers or the oak.

Yugoslavia, together with Rumania, was the principal timber-exporting country of Southeastern Europe before the war. Three-quarters of Yugoslavia's annual cut is used as firewood and much of the remainder is composed of sawlogs, the most important forest item exported.

An estimate has been made¹ that the annual cut (over 706 million cubic feet) is about 40% higher than the annual growth (about 494 million cubic feet). The problems of overcoming this unbalanced ratio are recognized in the Five Year Plan, and 240,000 acres are to be reforested, particularly in the bare Karst region. At present, a large proportion of Yugoslavia's timber production, which used to be available for export, is being utilized within the country owing to increased domestic consumption.

FISHERIES

Although Yugoslavia possesses a long, indented coastline, as well as numerous large rivers and lakes, the fishing industry is of only minor importance due mainly to the poor fishing grounds of the Adriatic. Furthermore the length and suddenness of the "bora" winds virtually restrict fishing to the summer months.

Mackerel is the most important fish caught. Other migratory fish of importance are sardines, tuna, anchovy, and bonito. Eels are caught notably in the Projek Channel; crayfish and lobsters are found especially in the Gulf of Fiume and in the Planinski Channel. Oysters are cultivated in the Malo Ston Channel.

The average annual catch from 1931 to 1941 was 9,500 tons. In 1949 a record Dalmatian catch of 12,900 tons was brought in, partly as a result of increased mechanization. Although in 1939 there were over 20,000 full-time and part-time commercial fishermen, there were only 275 motor-boats; in 1949 there were only 8,500 men, but there were 540 motor-boats. Although statistics are lacking, it is estimated that the catch of freshwater fish is somewhat less than that of sea-fish (the pre-war annual average being about 7,000 tons). Some saltwater fish are exported, but all freshwater fish are consumed in local markets.

MINING AND INDUSTRY

Under the economic phase of Yugoslavia's reconstruction program, it has been proposed that light industry (producing consumer goods) and agriculture must be based upon a concentration of heavy industry, power and transport. Thus a most important element of Yugoslavia's pre-war weakness has been recognized. Although the country is rich in minerals, a lack of heavy industry and processing facilities forced it either to export raw materials or to invite foreign investment. Potential power (coal and hydro-electricity) exists in relatively large quantities, but has remained undeveloped. Transportation facilities have been altogether inadequate for modern industrialization. The degree to which Yugoslavia has met the challenge of constructing a balanced industrial economy is one of the most important single factors in the economic analysis of that country.

Resources

Coal. Yugoslavia lacks one of the main requisites of heavy industry, viz. coking coal. There are considerable reserves of brown coal

¹ United Nations, F.A.O. Forest products world situation 1937-1946. 1948.

and lignite (39 million tons of coal and over 6,000 tons of lignite estimated), but full exploitation of these reserves is prevented by the distortion of the seams, the high shale content, and by inaccessibility. Most of the fuel (about 80%) is used by industry and the railways; little is used domestically. Production in 1947 (1.1 million tons of coal and 8.2 million tons of lignite) was double that of 1937. The three regions of Slovenia, Bosnia, and Serbia are most important producers. In Slovenia the important producing mines are east of Ljubljana. In Bosnia the Zenica-Sarejevo coalfield east of the Bosna River is the most important. In Serbia the coal resources lie mainly in the complex country between the rivers Morava and Timok, in the northeast corner of the province.

Petroleum. Before the Second World War Yugoslavia imported nearly all her requirements of petroleum (150,000 tons in 1939). Most of the country's petroleum must still be imported, but production is increasing in the area north of the Sava River in Slovenia (40,000 tons in 1947). Production of natural gas was 423 million cubic feet in 1947.

Water Power. Great potential water power exists in Yugoslavia's rivers. In 1939 only 2% of that potential (an estimated 24,000 million kilowatt hours) was harnessed. It is with increased use of hydroelectric power that the Yugoslavs plan to overcome their shortage of hard coal. Whereas before the war there were only two stations that produced over 10,000 kilowatt hours each, the Five Year Plan calls for 21 stations to produce 10,000 kilowatt hours each by 1951. Two plants with a combined total of almost 300,000 kilowatt hours are being constructed on the Neretva River at Jablanica and Rama in Hercegovina. With added power from new stations, over 2,000 million kilowatt hours were generated in 1948. (The objective for 1951 is 4,350 million kilowatt hours).

Iron Ore. Yugoslavia's iron ore reserves are estimated at 300 million tons. The two richest deposits are in Bosnia at Ljubija (250 million tons) and Vares (50 million tons). The former, situated near Prijedor, consists mainly of limonites, and, to a smaller extent, of siderites, whereas the Vares mines (northwest of Sarajevo) contain mostly hematite; 90% of the country's production is from these fields. Annual production had reached 450,000 tons in 1948 (1937 - 300,000 tons). Pre-war steel production in Yugoslavia was 200,000 tons annually. In 1947 production had reached 311,000 tons. The Five Year Plan goal is 760,000 tons.

Important steel works are at Jesenice, Gustany-Rawno, and Store in Slovenia, Zenica in Bosnia, and Smederevo in Serbia.

Non-Ferrous Metals. Yugoslavia is relatively rich in non-ferrous metals, particularly copper, lead and bauxite. Almost the whole output of copper comes from the Bor mines in northeast Serbia. Production in 1947 of 33,000 tons of blister copper had not reached the pre-war output (45,000 tons). The chief producing lead mine is at Trepca in the Kapaonik Mountains of Serbia, although lead is also mined near Plevlje, in northern Montenegro and at Litija, northeast of Ljubljana. Production has surpassed the 1937 total of 66,000 tons of lead concentrate in 1948. Zinc production, associated with lead, had reached 35,000 tons in 1947.

Bauxite deposits lie in a belt extending along the Adriatic coast and are among the largest in the world. Estimates of reserves are 80 to 100 million tons. The 1938 production of 400,000 tons of bauxite had not been reached in 1948 when 188,000 tons were produced. Additional deposits have been discovered near Niksic in southwest Montenegro. The only pre-war processing plant, located near Sibenik, was restored in 1946 and produced 2,900 tons during the following year. A rolling mill and two additional large reduction plants are planned. The possibilities for the manufacture of aluminium in the country seem very favourable, as there is an abundance of potential hydro-electricity in the ore fields.

More than 95% of the country's chrome comes from the Skoplje region in Serbia. Production is over 24,000 tons annually (1947). Antimony, magnesite, manganese and molybdenum are mined as well as some gold and silver. A new molybdenum mine in Serbia is expected to supply the country's needs of that metal by 1951. Sulphur pyrites are mined at Majdanpak and at the Trepca mines in Serbia.

Industry

Yugoslavia's pre-war industry, small as it was, suffered heavy war damage. The chemical, textile and metallurgical industries lost over half of their value, electricity one-third, and food-processing and building one-fifth. The capacity of the engineering industries is small, and does not cover home requirements. The largest plants are at Bosanski Brod, Smederevo, and Osijek. Notable post-war factories have been built at Ljubljana (electrical machinery and turbines), Chakovec (textile machinery), Zavedovici (prefabricated houses), Zaleznik (machine tools), Sisak (machine tools), and Zitnjak (steam boilers)¹. New light industries are located at Novi Sad (electro-porcelain), Prijedor (cellulose products), Kranj (film projectors), Beograd (medical instruments), Skoplje (tobacco), Zemun (penicillin), Zagreb (pharmaceutical products), Vojvodina (starch and glucose), Split (nylon), and Pancevo (glass). Ship-building is important at Rijeka and Split. Since the war three 4,100-ton ships have been built. The small aircraft industry was located mainly at Beograd before the war. Armaments were built at Kragujevac and Sarajevo. Other established industries include glass manufacturing (headquarters at Zagreb), electro-chemical industry (near Sibenik, Omis, and Maribor), wood distillation (Telsic), pharmaceutical products, particularly opium and its derivatives, (southern Serbia), and explosives (Kamnik and Obilicevo).

Forest Industries. Forest industries have been of great importance to the Yugoslav economy. Products of the forest have usually headed the list of exports (26% of total value in 1949). Although about 75% of the total forested area consists of hardwoods, about 75% of the total cut consists of softwoods. While before the Second World War there were over 3,000 sawmills in the country, 136 large mills accounted for all the export trade. Most of the mills are in Slovenia and Croatia. Domestic requirements of wood products are met by this production, although about half the newsprint requirement was imported before the war.

¹ Yugoslav Fortnightly, April, June, July, August, October, November, December, 1949.

Textile Industries. Before the war the textile industries depended upon imports for 90% of their raw materials. The cotton industry is the most important; cotton acreage has increased tenfold since before the war. Woollen mills are small despite the large number of sheep in Yugoslavia; two-thirds of the annual clip is retained by the growers for home industry. A considerable hemp industry, based on locally grown hemp, covers all domestic requirements. Flax output, based on a well-developed, peasant industry, does not cover local needs. There are also small jute, silk, and rayon industries.

Other Industries. Other local industries of importance to Yugoslavia are flour-milling, the production of dried prunes, and olive oil, sugar, tobacco, and meats.

It is readily apparent that Yugoslavia has made great strides in its initial accomplishments towards industrialization. Despite the destruction caused during the Second World War, and despite all the handicaps associated with a relatively backward country, the ground-work has been laid for the development of a more advanced industrial state. Basic heavy industry and electric power generation are expanding rapidly. A whole series of articles, that were not produced in the country five years ago, are now manufactured - trucks and tractors, cranes, water turbines, boilers, heavy machine tools, transformers, and plastics. In view of the resources available, and the progress made in such a short period of time, it seems quite possible that, if political stability is maintained, Yugoslavia will become the most important industrial nation of the Balkans.

TRANSPORTATION AND COMMUNICATIONS

A great improvement in the means of transportation has been recognized as a prime necessity in the development of Yugoslavia's economy. Rail and road facilities from the mountainous areas to the Danube Basin, and from the Danube Basin to the Adriatic coast, were inadequate before the war. Some of the existing railways had been built for strategic reasons and some for economic reasons. Many were narrow gauge. Little transportation construction had been undertaken for the good of the country alone. Of the pre-war track mileage of 6,650 miles, 4,600 were narrow gauge. The war destroyed or damaged 3,800 miles of track¹. Roads and bridges, vehicles, shipping, and port facilities also suffered considerable damage. The rebuilding and enlarging of the transportation system to meet the needs of a more advanced industrial state is one of the prime phases of the country's Five Year Plan. (Fig. 11).

Railways

The main artery of rail communication in Yugoslavia is the "Orient Express" line which follows the Sava River route from Ljubljana to Beograd. This railway was to be completely double-tracked by 1949.

Routes from Italy, Austria, Hungary and Rumania converge on the Yugoslav section of the "Orient Express" line and it is also linked to

¹ Morris. Yugoslavia. p.71.

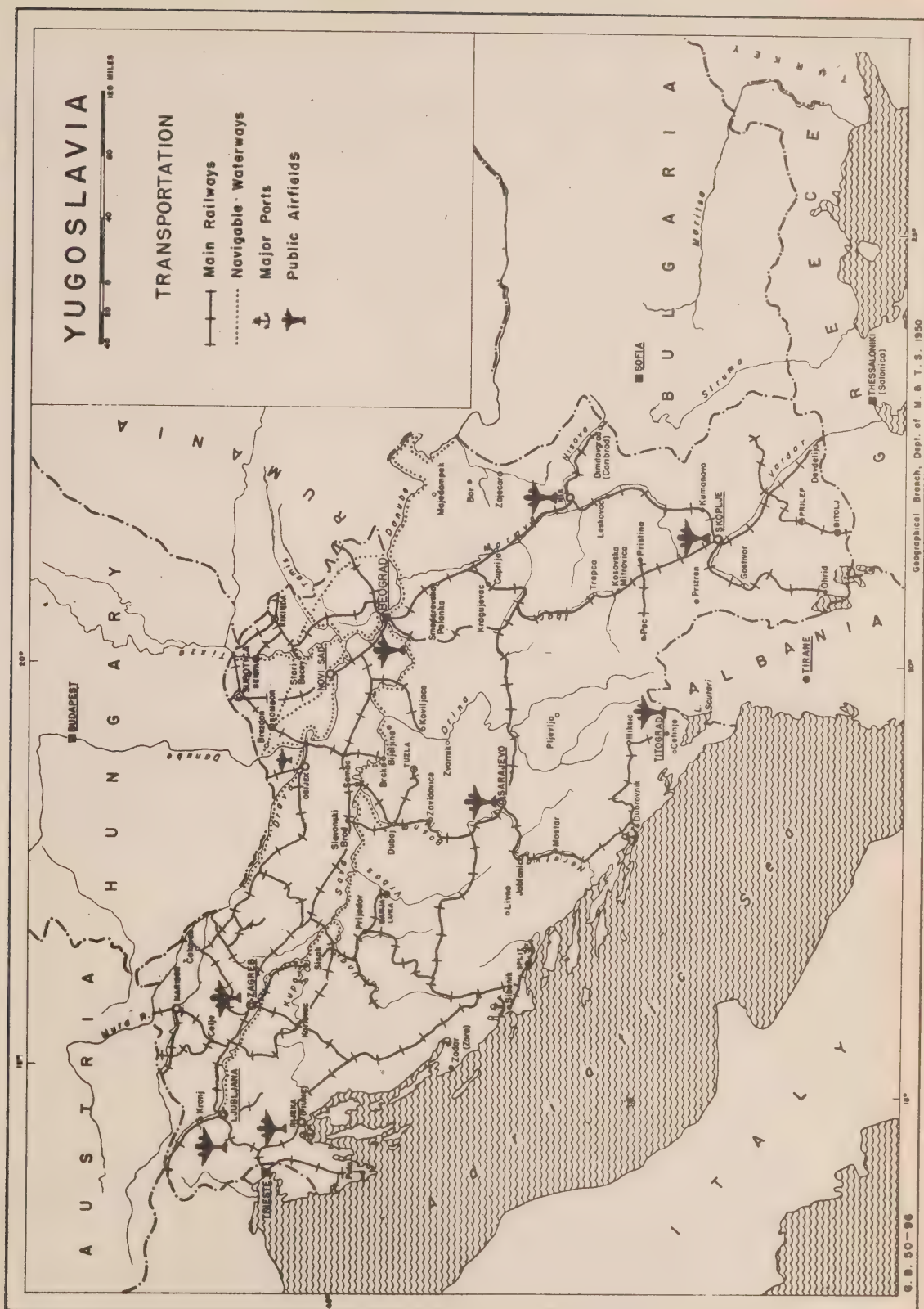


Fig. 11

Trieste and Rijeka by standard gauge lines. The line linking this main line with Dubrovnik is of narrow gauge. The main "Orient" line south-east of Beograd strikes the Morava Valley at Velica Plana and follows the valley through to Nis. At Nis, the line to Sofia and Istanbul diverges to the east up the Nisava Valley, and a branch strikes northwards to Prahovo on the Danube. The line to Greece continues up the Morava Valley, crosses to the Vardar Valley at Skoplje, and follows that river southeastwards towards Djevdjelija on the Greek frontier. From Veles a second line extends towards Thessaloniki via Bitolj. A narrow gauge system in Bosnia radiates from Sarajevo.

Yugoslavia's damaged rail equipment and rail lines have largely been repaired or replaced since 1945. By September 1949, 4,400 miles of track had been restored and almost 930 miles of new track built. By 1947 the replacement of lost equipment had been almost completed. The construction of new lines is proceeding at a relatively rapid rate but through lack of equipment much manual labour has to be utilized.

	1937	1947
Engines	2,364	2,155
Passenger coaches	5,140	3,698
Freight cars	54,306	46,309

Roads

Roads have, in the past, been no better than railways. Consequently, it will be many years before adequate roads link the more inaccessible parts of the country. A new modern highway linking Beograd and Zagreb is nearing completion. By August 1949, 124 of the 236 miles were completed. It will furnish a much-needed first class road link through the productive core of Yugoslavia. Compared with the North American standard of motor transport the Yugoslavs are very poorly equipped; there is only one commercial vehicle for about every 1,000 persons, and only one automobile for every 2,000 persons.

	Automobiles	Commercial Vehicles
1937	11,300	3,900
1947	7,400	14,000

Road travel is also restricted by the shortage of petroleum products. Thus, despite replacement and reconstruction of both rail and road facilities, the Yugoslav economy continues to struggle under great transportation handicaps.

Waterways

A stretch of 350 miles of the Danube River lies within Yugoslavia. The largest portion (22%) of total registered tonnage for the Danube waterways is Yugoslavia's (335,806 tons in 1948). To improve the waterways, the Danube-Tisza-Danube Canal is being constructed. This will link Bedam on the Danube to Stari Becej on the Tisza, and Banatska Palanka further downstream on the Danube. It will shorten the navigable route through Yugoslavia by 56 miles, will aid flood control, and will facilitate large-scale land reclamation in the Vojvodina.

River craft intended for transit traffic into the upper Danube Basin beyond Yugoslavia are restricted in size, and these craft, when self-propelled, are usually steam paddle-wheelers. Diesel-powered screw-ships are used in the lower Danube. Through Yugoslavia the minimum depth of the navigable channel is 6.6 feet; the minimum bridge clearance regulation of 21 feet above high-water level is not met by all bridges. Characteristics associated with Danube River transport vessels are; light structure for shallow draught; low girder construction for bridge clearance; large rudders for manoeuvrability; and moulded, ship-like form (not flat-bottomed).

Ports and Merchant Marine

The Dalmatian coast of the Adriatic Sea is characterized by numerous bays and gulfs, long islands lying parallel to the coast, and enclosed longitudinal channels ideal for coastal shipping. However, certain factors have prevented the development of ports and large-scale merchant shipping. The weather, particularly in winter, makes navigation difficult because of extremely strong northerly and northeasterly winds (e.g. the Bora), thick fogs, and much rain. Inadequate transportation connections with the productive Danube Basin, the relative poverty of the Dalmatian coast, and the political instability associated with the whole Balkan area have hindered development. The port of Rijeka (Fiume and Susak) has changed hands frequently. Only since the First World War had this coast known a common nationality.

Rijeka, Sibenik, Split, and Dubrovnik are the major ports. Although all were badly damaged during the Second World war, they have been largely restored to pre-war tonnage capacity. Yugoslavia's pre-war merchant tonnage of 400,000 tons had been reduced to 64,000 tons (38 ships) in 1945. Although the goal of the Five Year Plan is 600,000 tons of shipping in 1949, only 180,000 tons have been acquired. Trade through the ports has reached pre-war levels however; Rijeka's pre-war annual traffic (950,000 tons in 1939) had been surpassed during the first nine months of 1949 (1,600,000 tons). The construction of first class, standard gauge railway lines to the ports is needed to ensure full utilization of trade and shipping potentialities.

Air Transport

In 1939, Yugoslavia had only one national, commercial, air transport company (12 aircraft), and most of its service was seasonal. Five foreign companies (U.S.S.R. Czechoslovakia, Poland, Hungary and Switzerland) operate in the country. The main customs airfield is at Zemun, 3 miles from Beograd, while other customs fields are at Ljubljana, Skoplje, and Zagreb. Public airfields are located at Nis-Medosevac, Osijek, Titograd, Sarajevo, and Rijeka. Of major importance in the establishment of air transportation in Yugoslavia, is the modernization of air fields to facilitate year-round flying.

TRADE

Yugoslavia occupies an unusual position in world trade because of her unusual political status as an adherent to communism but lying outside the domination of the Cominform. Important recent changes in the direction

of exports and the source of imports are the direct result of this position. Despite the presence of an appreciable rural subsistence economy based upon peasant farming and domestic crafts, foreign trade has been of vital importance in the Yugoslav national economy. In the past, the country has had to import about 75% of the national requirements of processed and manufactured goods. Forestry, mining and agriculture have furnished the bulk of the export commodities. Considerable annual variation of trade volume has resulted from the dependence of agricultural exports upon harvest yield. Before the Second World War, trade was essentially with the Central European countries, such as Germany, Austria, Hungary and Czechoslovakia, rather than with the other Balkan states, although Yugoslavia has been almost entirely dependent upon certain of the Balkan countries for strategic goods (e.g. petroleum from Rumania). Yugoslavia also occupies an important position relative to the Danube River transit trade passing from the Central European states to the Balkan countries and the Black Sea. (Fig. 12).

In the past, imports have been mainly manufactured goods which the immature Yugoslav industries could not supply. The government is now trying to limit such imports, either by producing them within the country, or by doing without them. Inevitably, Yugoslavia must continue to import certain goods, such as fuels (coke and petroleum), and agricultural products (textile fibres, coffee, etc.), which cannot be produced in the country. Although details of imported products are not available for recent years, in 1948, 67% were raw materials, 26% capital goods, and 7% consumer goods.

Yugoslavia's export trade has been dominated by forest, farm and mine products. Lumber and lumber products, maize, wheat, live stock (especially pigs), copper, lead, bauxite, iron and chrome are the leading exports. In post-war trade there has been a decrease in the proportion of total exports occupied by agricultural products, while the proportion of lumber products, minerals, and manufactured goods has increased.

Particular note should be made of the current change in direction of Yugoslavia's trade. Whereas before the Second World War Yugoslavia traded with Western European countries, immediately after hostilities ceased she began to trade with the Eastern European countries of the Cominform. The 1935-39 trade with the U.S.S.R. constituted 0.1% of the total; the 1948 trade with the U.S.S.R. constituted 55%. Whereas trade with Germany before 1939 constituted between 25-30% of the total value, in 1947, trade with Germany constituted less than 4% of the total.

Since June 1948, the trading has, however, shown a return to its pre-war direction because of Yugoslavia's exclusion from the Cominform trade bloc. At first only Albania broke off trading with Yugoslavia, but by June 1949, trading had ceased with Czechoslovakia and Hungary. In the meantime, Yugoslavia had made trade agreements with other nations including Great Britain, Austria, India, Switzerland, Argentina, Uruguay, Pakistan, Ceylon and the United States. Exports of copper, iron, and other ores and minerals which had been moving eastward, began flowing to the west. The Five Year Plan had been based on the assumption that Yugoslavia would be able to import many capital goods from the U.S.S.R. Although the country is self-sufficient in food products and most raw materials, it had depended upon Rumania and Albania for petroleum products,

YUGOSLAVIA TRADE

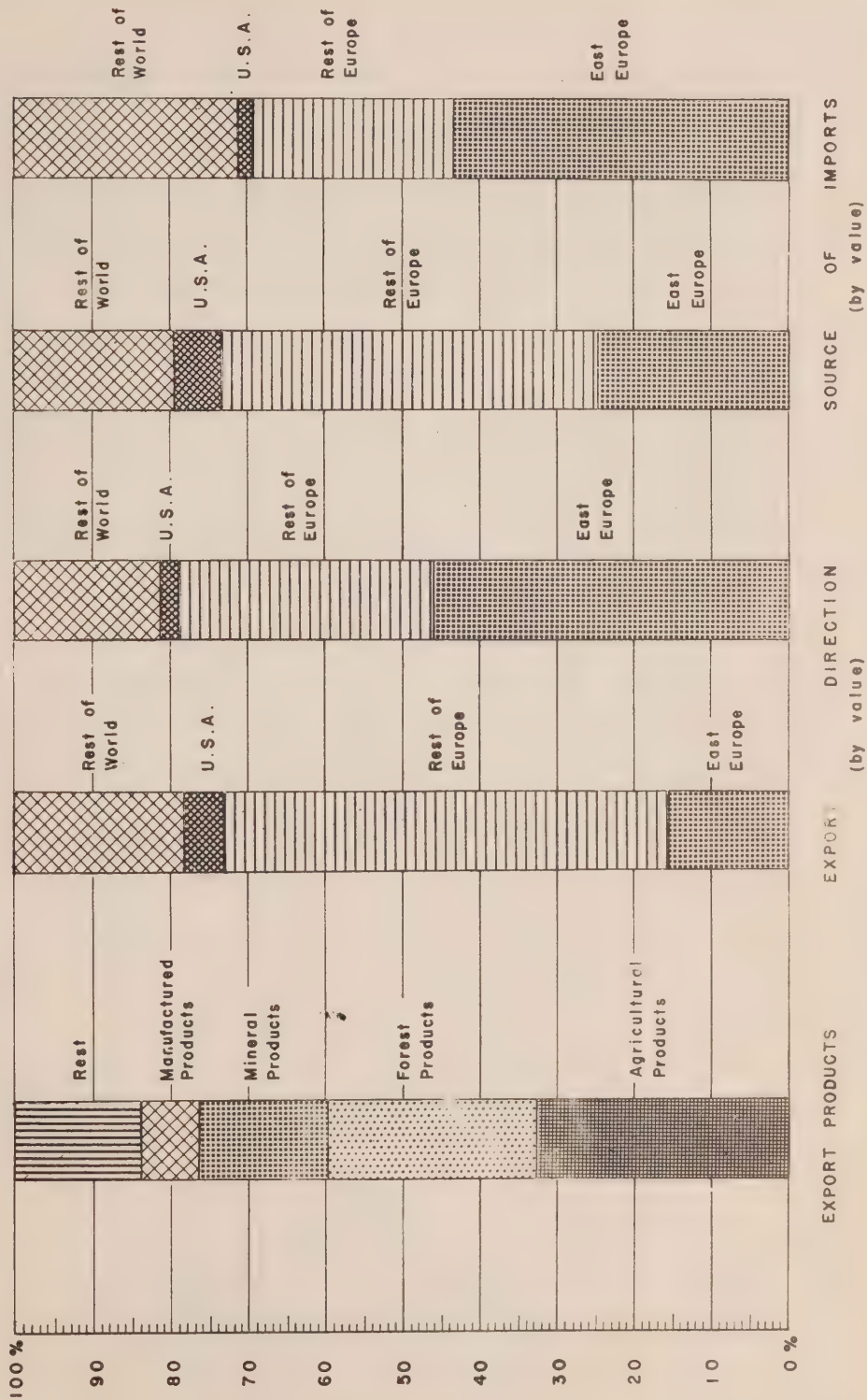


Fig. 12

and Czechoslovakia and Poland for coke. By November 1947, Yugoslavia began receiving coal from the Economic Commission for Europe. During 1949, Polish-Yugoslavia trade was reduced by three-quarters, and it was expected that U.S.S.R.-Yugoslavia trade would be reduced by seven-eighths. Since the summer of 1949, Yugoslavia has received some \$75 million from the Export-Import Bank, the World Bank, and the International Monetary Fund. The total trade with the West in 1949 did not equal trade with the East in 1948, even though exports to the United States had been greater than imports from the United States.

In the past year there has been a notable change in Yugoslavia's foreign policy which may be readily related to its trade and its plans for economic development. The country is attempting to meet the goals that were laid down in its Five Year Plan. More and more, Yugoslavia is directing its exports towards Western markets, as is indicated by its participation in the international trade fairs in Great Britain and Canada. Without foreign interference, and with little foreign assistance, Yugoslavia is attempting to build up its economy by increasing heavy industry, and by improving transportation facilities.

TABLE 7
AGRICULTURAL PRODUCTION

Crop	1934-38 Av.		1945-46		1947	
	Metric Tons (000's)	Acres (000's)	Metric Tons (000's)	Acres (000's)	Metric Tons (000's)	Acres (000's)
Maize	4,700	6,800	1,500		4,000	
Wheat	2,500	5,300	800			
Oats	300	900				
Barley	300	1,000				
Rye	200	600				
Potatoes	1,700					
Tobacco	15					
Sugar Beets	600					
Hemp	58	500				
Cotton	3	14				140
Hay	3,200	4,600				

Sources: United Nations. Statistical Yearbook 1948. 1949.
Yugoslav Fortnightly, Vol. 1. 1949-50.

TABLE 8
LIVE STOCK

	1939	1945	1946-7
Cattle	4,200,000	1,900,000	2,500,000
Swine	3,500,000	1,500,000	2,800,000
Sheep	10,200,000	5,800,000	6,400,000
Goats	1,900,000		
Horses	1,300,000	400,000	600,000

Sources: United Nations. Statistical Yearbook 1948. 1949.
Yugoslav Fortnightly, Vol. 1. 1949-50.

TABLE 9
MINING PRODUCTION

	<u>1937-38</u>	<u>1946</u>	<u>1947</u>	<u>1948</u>
Lignite				
metric tons (000's)	5,300	6,000	8,200	
Coal				
metric tons (000's)	400	800	1,100	
Petroleum				
metric tons (000's)	1	21.3	38.6	
Natural Gas				
million cubic feet	84.7	212	424	
Bauxite				
metric tons (000's)	350		88	188
Iron [*]				
metric tons (000's)	280	180	340	
Copper [*]				
metric tons (000's)	45	24	33	
Lead [*]				
metric tons (000's)	66	43	52	
Zinc [*]				
metric tons (000's)	47	22	35	
Chrome [*]				
metric tons (000's)	19	31	25	
Magnesite				
metric tons (000's)	40		15	
Manganese [*]				
metric tons (000's)	1.5	2.4	4.1	
Molybdenum [*]				
metric tons (000's)	0.074	0.072		
Gold [*]				
ounces (000's)	60.4			
Silver [*]				
metric tons (000's)	0.078			
Sulphur (Pyrite)				
metric tons (000's)	63	20	32	135

^{*} Metal Content

Sources: United Nations. Statistical Yearbook 1948. 1949.
Yugoslav Fortnightly, Vol. 1. 1949-50.

HISTORICAL AND POLITICAL GEOGRAPHYEarly Historical Development

The folkways of Europe have dominated Yugoslavia's development since early historic times. Their influence has been both direct and indirect - direct in that they were the channels along which the floods of conquest rolled - indirect in that where they skirted hilly areas, such areas became refuges for people escaping the floods. The distribution of peoples within Yugoslavia has already been described, and mention was made of the influence the folkways had on this distribution. It may be well to re-examine this distribution and the early history in detail for they indicate a pattern of events that is continually repeated.

The Danubian Basin to the north of the country has played the most important role. As a wide, flat plain traversed by a number of broad rivers (the most important being the Danube and the Tisza), it draws many routes from the mountain rims. A number of corridors or gates give access to this basin from both East and West Europe, and from Central Europe and the Mediterranean (Fig. 13). During early historic time the Danubian Basin acted as a **reservoir** of peoples. Those who swept along the corridors out of Eastern Europe and Asia often stopped here to rest, and to regroup their forces for the assault on the lands of Western Europe. The peoples of Western Europe, in order to protect themselves, often sent their armies along the folkways against the migrant peoples of the basin. Later, with the growth of national states and imperialism, the Western armies were bent on conquest as much as on self-protection.

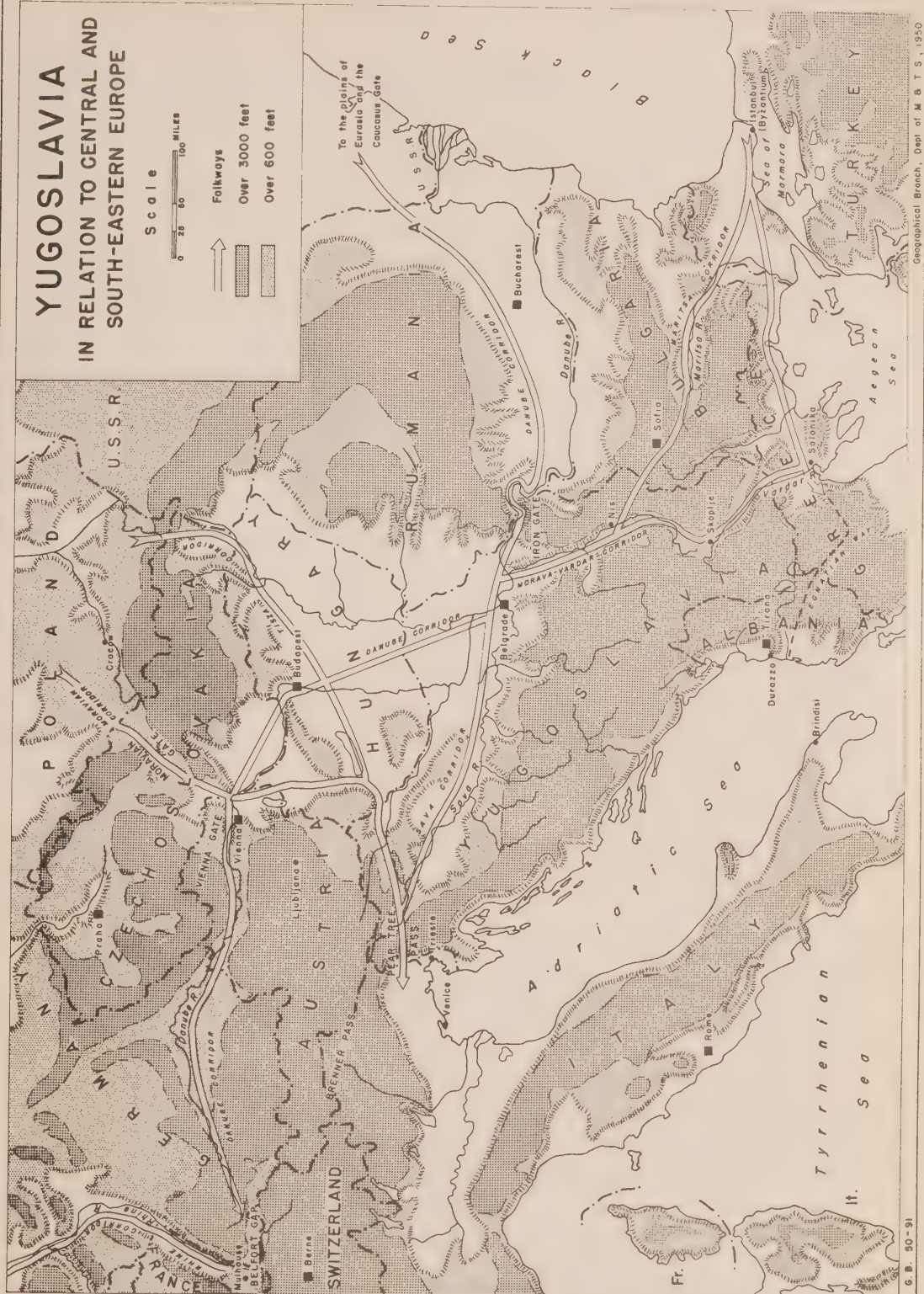
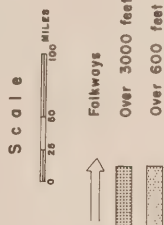
Yugoslavia lies in the southern portion of the Danubian Basin, and is the meeting place of a number of important folkways. On the east, the Danube corridor cuts through the Carpathians at the Iron Gate and leads to the Black Sea and the steppe-lands of Eurasia. The Morava River, joining the Danube from the south, forms a corridor through the mountain and hill country of central Yugoslavia. At Nis this corridor bifurcates. The west fork continues up the Morava Valley and then follows the Vardar Valley to Thessalonika and the Aegean Sea. From Thessalonika there is an easy routeway eastwards along the coast to the Hellespont, a route made famous by Xerxes, and used by Alexander. The east fork follows the Nisava Valley into Bulgaria and then via a low pass to the head of the Maritsa Valley. The Maritsa leads southeast to Adrianople and to Istanbul (Byzantium).

The Sava River, with its sources in the Alps, flows eastward along the southern edge of the Danubian Basin until it meets the Danube. The upper valley of the Sava penetrates the Dinaric Mountains and leads to the Pear Tree Pass of Istria and so to Italy. It formed an important folkway not only because it led to the Plain of Lombardy but also because only through the tributaries of the Sava could the rugged lands of the Dinaric region be penetrated with any degree of success.

The corridors entering the Danubian Basin from the north, although distant from the present and the historic frontiers of Yugoslavia, have

YUGOSLAVIA

IN RELATION TO CENTRAL AND
SOUTH-EASTERN EUROPE



Geographical Branch, Dept of M & T S, 1950

G.B. 50-91

Fig. 13

always had their effect on the history of the country. The Danube corridor, after crossing the plain, leads through the Vienna Gate in the northwest and, following the valley of the Danube, leads westward to the Belicort Gap where it meets the Rhone-Rhine folkway. Two folkways break through the barrier of the Carpathians and join the basin to the North European plain - the Moravian Gate and the upper valley of the Tisza River.

The Romans early recognized the significance of the Sava corridor both as a threat to northern Italy and as a route for trade. Their conquest of Illyria, Pannonia and Dacia followed the major corridors. Only after they had taken the corridor routes could the Romans conquer the highlands which the corridors penetrated. It was in the Basin of Hungary (Pannonia) that the Roman Empire first began to crumble. During the period of the folk migrations, the basin was filled by successive waves of peoples who followed each other along the corridors leading to the riches of the West. Rome was the goal for most of these migrating armies: the Sava corridor saw the armies of the Visigoths succeeded by those of the Huns; those of the Huns succeeded by those of the Ostrogoths, the Lombards, the Avars, the Slavs and the Magyars. Most of these peoples did not settle in Yugoslavia except in the Pannonian Plain. They were content to hold the corridors until driven from them by a more powerful people. The Slavic tribes, however, began to settle in the area after 582 A.D., gradually spreading southward until they held most of the land south of the Drava-Danube line. The Slovenes occupied the upper valleys of the Drava and Sava Rivers athwart the Pear Tree Pass and along the western edge of the Danubian Basin (i.e. the route from Italy to Vienna). The Croats occupied the valleys of the middle Sava and Drava and the coast of Dalmatia. They too had settled on the Sava corridor. The Serbs occupied the remainder of Yugoslavia by first gaining control of the major corridors and then penetrating the higher lands via the river valleys. They eventually spread into Bulgaria and into northern Greece through the Maritsa and Vardar corridors. The remnants of the Illyrian peoples were slowly driven into the mountains of Albania. (The modern descendants of these people are the Albanians). These Illyrian peoples were centred about the Ignatian Way, the old Roman route from Durazzo to Thessaloniki which had fallen into disuse with the disruption of trade by the folk migrations.

For five hundred years after the Serbs had settled in the land, the southern part of the Balkan Peninsula, Macedonia in particular, saw continuous changes in political control. Generally speaking, the tide of battle flowed back and forth along the two southern corridors, the Vardar and the Maritsa. The powers who fought for control of these routes and the lands through which they led were the Greeks, the Bulgars and the Seres.

Under the Carolingian monarchs, Western Europe expanded its territories in an eastward direction, partly for the sake of territorial expansion, partly for the sake of converting the barbarian peoples to Christianity, and more particularly to obtain a buffer area in which the raids of the Eastern barbarians could be met without the homeland being laid waste. Control of the corridors and gateways thus became an essential part of the policy of the Carolingians and of their successors, the rulers of the Holy Roman Empire. In 791-6 Charlemagne, in order to secure and protect his holdings in Italy, conquered the Slovenians who controlled the Pear Tree Pass and the head of the Sava corridor. The Vienna Gate was also captured and made the centre of a Carolingian. Between Vienna and the Pear

Tree Pass a number of marches were formed (i.e. Carniola, Carinthia, Styria) to protect the West from the raids of the peoples occupying the Danubian Basin. Charlemagne used these bases to break the power of the Avars. His successors battled, sometimes unsuccessfully, with the fierce Magyars who replaced the Avars in the basin during the ninth century.

By the year 1100, most of the peoples of Central Europe, including the Magyars and Slavs, had been converted to Christianity, and national monarchies had begun to develop. Control of the gates and corridors became essential for survival as well as for expansion. Croatia was annexed by Hungary in 1102. The Duchies of Carinthia and Carniola became part of the Hapsburg domains (i.e. part of Austria).

At the beginning of the Turkish invasions, the Austrians held Slovenia and the western end of the Sava corridor, the Magyars (or Hungarians) held Croatia and the remainder of the Sava corridor, and the Serbs controlled the Morava-Vardar corridor and the highlands drained by the Sava tributaries. The Bulgarians possessed the Maritsa corridor and its surrounding highlands. The balance of power was more or less even. However, early in the 14th century, the Ottoman Turks swept into Europe from Asia Minor. Penetrating up the Maritsa and Vardar corridors, they destroyed the power of the Bulgars and the Serbs and changed the power pattern of Europe. The Serbian armies were annihilated in the Battle of Kosovo and the Serbian kingdom destroyed. The Turks continued up the Morava corridor to the middle Danube. On this plain the armies of the West met the power of the Turks. Western civilization was at stake. The fighting continued intermittently for 200 years before the Turks were finally penned south of the Sava-Danube line in 1699. They fell before a combined Austrian and Hungarian force. From 1700, the Slovenes and Croats were ruled by the Austro-Hungarian Empire, and part of Yugoslavia again came into the Western sphere.

Ethnic and religious factors were then to play an increasing part in the political geography. Slavic peoples formed the peasantry, while the Germans in Slovenia and the Magyars in Croatia formed the land-holding aristocracy. However, some of the old Croatian aristocracy still remained in power. As noted before, because of their western orientation, the Croats and Slovenes had become Roman Catholic in religion. The Serbs, on the other hand, because the major corridors traversing their land led to the south-east, had become Greek Orthodox in religion. During the reign of Stefan Dusan they had succeeded in winning national recognition and autonomy for their Church from Byzantium. In the course of the Turkish conquests most of the native Serbian aristocracy had been killed and were quickly replaced by Turks.

In Bosnia, however, the Serbian aristocracy managed to survive in part. A large number of the Bosnian land-holders and peasantry were followers of the Bogomil heresy. Having been severely persecuted by the followers of both the Roman Catholic and Orthodox faiths, they were converted to Islam soon after the Turks had conquered Bosnia. The Albanians, after a long struggle, also succumbed to Turkish arms and were converted to Islam.

Such differences in religion and culture kept Yugoslavia divided, and made it difficult to organize a united front of South Slavs either

against Turkey or against Austria-Hungary. Thus the country was long delayed in achieving unity and independence.

The Period from 1700 - 1804; the International Stage is Set

While the Austro-Hungarian Empire had been struggling with the Turks for control of the Danubian Basin and the entrances to the West, Russia had thrown off the yoke of the Tartar Khans and taken its place as one of the growing powers of Europe. Consequently, from 1700 to 1914, Central and Southeastern Europe formed an arena for three Imperial powers - Austria-Hungary, Russia and Turkey; the first two were trying to expand their territories to the east and the west respectively, and the third trying to hold the land it already possessed. All three empires used religious faith as a weapon and as an instrument of diplomacy - the Austrians and Russians more so than the Turks, for there were few Muslim peoples subject to the rule of the Christian states.

During the course of the struggles between these three titans, the South Slavs began to revive hopes of independence. The national feeling was particularly strong among the Orthodox Serbs despite the fact that their kingdom had been eliminated at Kosovo. This national feeling grew stronger with time, nurtured as it was by oral traditions, and by countless revolts against the Turks. The strongholds of Serbian culture were in the rugged uplands away from the corridors where the Turks were firmly entrenched.

Montenegro had never been conquered by the Turks although, from time to time, its capital, Cetinje, and other cities had been sacked. This mountain fortress was ruled by bishop-princes and became the refuge and rallying ground of all Orthodox Serbs as well as of the Serbian culture. The deeds of national heroes among the Serbs were kept alive in the legends, songs and commemorative dances ("kolos") of the people. This oral tradition nurtured the spirit of revolt among the Serbs and in turn was kept alive by the numerous revolts.

The revolts by the Christian peoples of Southeastern Europe against the Turks were usually the result of either of two forces; one was the oppression of the Turks, the other the agitation of the Austrians or the Russians. In this latter case the Austro-Hungarian Empire and the Russian Empire were not as interested in liberating the Balkan peoples from Turkish oppression as they were in aggrandizing themselves at the expense of the Turks. The Serbs, Greeks and Bulgars were thus pawns in the game of power politics - a status they were to maintain even after they had won their own freedom.

The Austrians solicited the aid of the Serbs in the Turkish wars by calling the wars holy wars. Often after the battles had been fought and peace prevailed for a few years, the rebel Serbs, for the sake of self-preservation, migrated to the neighbouring Vojvodina district. Such was the migration led by the Patriarch of Ipek in 1691 from the basins about Kosovo. The lands vacated by the Serbs were immediately taken up by Muslim Albanians and Serbs. The Serbs of the Vojvodina were allowed to maintain their Orthodox faith within the Roman Catholic, Austro-Hungarian Empire because they formed garrison settlements along a dangerous frontier. Thus they remained culturally one with the Orthodox Serbs in the Turkish Empire.

The Russians, being of Orthodox faith, declared themselves the protectors of all the Orthodox Christians subject to Islam. This was not so much a moral policy as it was a political weapon to be used when the occasion warranted. But despite this, a feeling of respect for, and a trust in, Russia was built up among the Balkan peoples, the Serbs and Bulgars in particular. The entire relationship was based on a kinship of Orthodox peoples. In essence this was the basis of the Pan-Slavic movement in the Balkans. The belief in the union of Slavic peoples was strong among the Orthodox Serbs and Bulgars. The Roman Catholic Slovenes and Croats looked upon it with suspicion as they feared the domination of the Orthodox Tsar of Russia. The Russians considered Pan-Slavism as an aid to expansion southwestward into the Balkans and an aid to the control of the Bosphorus.

Growth of Nationalism among Serbs, Croats and Slovenes

From 1791 to 1804, Serbia was torn by internal strife caused by the excesses of the Janissaries stationed there. These were the elite shock troops of the Turkish army consisting of boys kidnapped from Christian homes in Southeastern Europe. These boys were converted to Islam and trained from childhood in the bearing of arms. For a time, Serbian peasants supported the Turkish Governor in battling the rebelling Janissaries. In 1804, the Serbs led by Kara George arose in revolt against the Turks. For a number of years they fought against heavy odds supported only by the Russians. When the Russians under the threat of Napoleon were forced to make peace at the Treaty of Bucharest in 1812, the revolt collapsed.

In 1815, Milos Obrenovic raised the banner of revolt again, and, after a number of victories in the field, made peace with the Turks. The suzerainty of the Sultan was recognized although the Serbs were to remain a semi-autonomous people under the autocratic rule of Milos Obrenovic (appointed Prince by the Sultan). Full autonomy was given Serbia in 1829 by the Treaty of Adrianople. From that date Serbia had little time for peaceful development. Full independence from Turkey was finally obtained in 1868. The young Serbian nation lay athwart the route to the Mediterranean from the Danubian Basin. As a result it was alternately under the influence of Austria and Russia as the great powers of Europe made their strategic moves. But despite this, the Serbian kingdoms of Serbia and Montenegro grew territorially at the expense of Turkey in 1878 (Serbo-Turkish Wars) and at the expense of the Turks and the Bulgars in 1912-13 (the Balkan Wars).

Geographically, the expansion of Serbia was almost entirely along the Morava-Vardar corridor (Fig. 14). The original area of Serbia in 1817 was bounded on the north by the Sava-Danube line and encompassed the lower valley of the Morava. As a result of the Serbo-Turkish Wars of 1877-78 the Serbs gained Nis and the upper valley of the Morava. Macedonia and the Vardar Valley were annexed in 1913 after the Balkan wars with Turkey and Bulgaria. At the same time, Serbia also inherited the Macedonian problem. The Montenegrin gains were small and of lesser significance (Fig. 14).

During all this time Croatia and Slovenia had been integral parts of the Austro-Hungarian Empire. The Dalmatian coast, however, had been held by the Republic of Venice in order to protect her shipping in the Adriatic from the pirates who had bases there. Despite continual attacks by the Turks, Venice had managed to maintain control of the northern Dalmatian coast until the republic was destroyed by Napoleon. Napoleon,

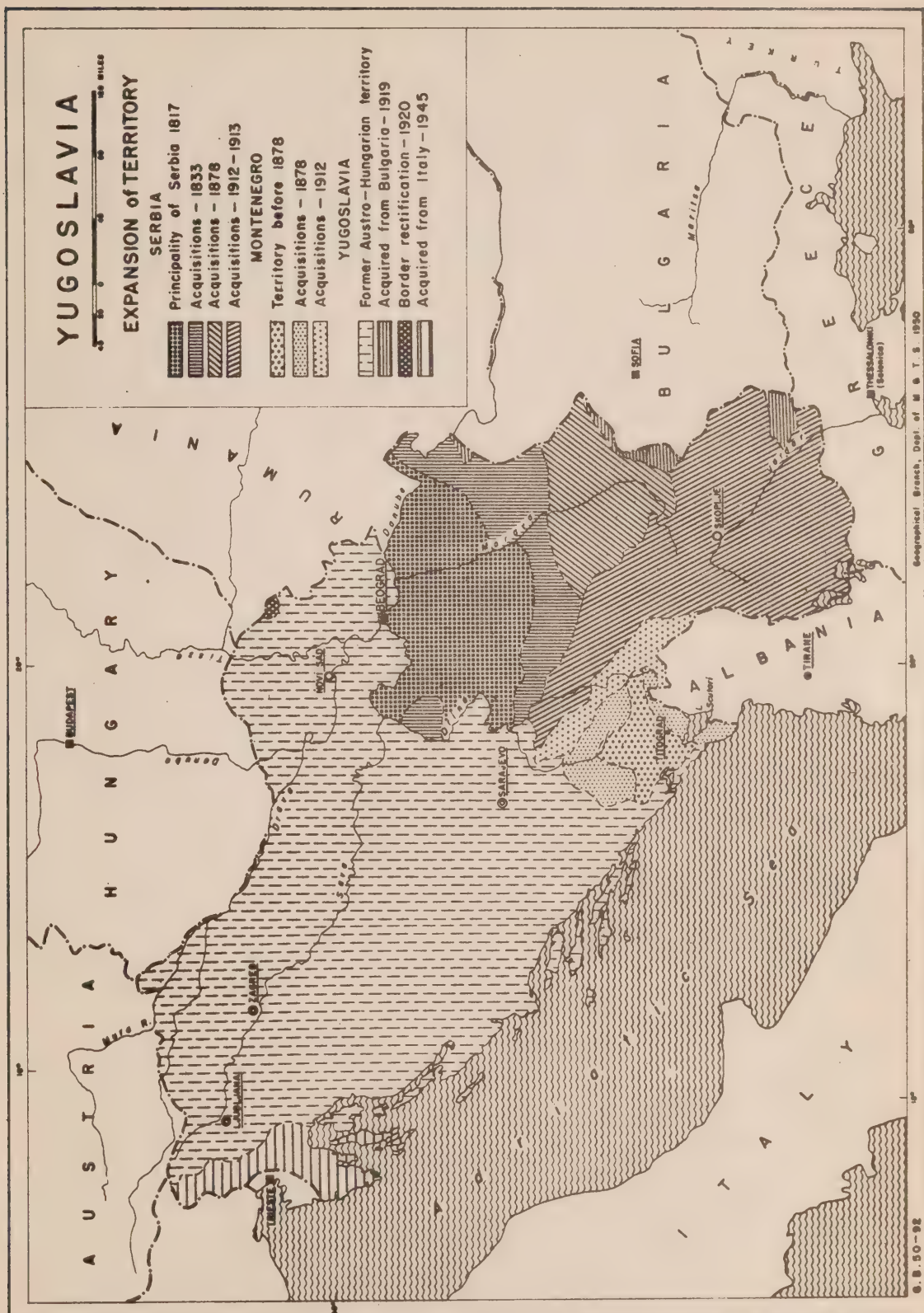


Fig. 14

to protect his puppet Kingdom of Italy, as part of his war against Austria, conquered Slovenia and Croatia (i.e. the upper portions of the Sava corridor). Croatia, Slovenia and Dalmatia were combined to form the Illyrian provinces of the Kingdom of Italy in 1809. In an effort to gain popular support, Napoleon made Slovenian and Croatian the official languages and the languages used in the schools. When his Empire fell in 1813, Croatia and Slovenia were again occupied by Austria, and this time the Austrians also annexed Dalmatia. The seed of Slovenian and Croatian nationalism had, however, begun to germinate.

One of the effects of the Napoleonic Wars had been the growth of Magyar nationalism with the result that the Austro-Hungarian Empire became the dual Kingdom of Austria and Hungary. The Croats assigned to the Hungarian portion of the Empire soon filled a position in the internal struggles of the Empire similar to that of the Serbians in the international situation - they were pawns in a game of politics played by stronger peoples.

The Magyars embarked on a program of enforced Magyarization, when it was politically possible, persecuting both the Roman Catholic Croats and the Orthodox Serbs of the Vojvodina. In this way not only was Croat nationalism strengthened but also the kinship between Croat and Serb was soon recognized by both these peoples.

1878 to 1914; Prelude to the First World War

After 1878, the tempo increased rapidly, for, by this time, Greece, Bulgaria and Rumania had all won their independence. Turkey, however, still had lands which were coveted by Serbia, Montenegro, Bulgaria and Greece. Russia desired to extend her influence over the Balkan nations and eventually to take over the Bosphorus. Austria wanted to extend her influence over the Balkan nations and eventually to take over the Morava-Vardar corridor in its entirety. Germany was formulating her "drang nach Osten". Great Britain and France were engaged in the policy of providing checks and balances. The result was a continuous state of turmoil in the Balkans; of alliances hastily made and hastily broken; of economic pressure and interference; of revolts and oppression; of wars and of peace conferences. It was no wonder that the Balkans were called "the powder keg of Europe". But no matter what the situation, both Austria and Russia saw to it that no one Balkan nation or union of nations grew strong enough to imperil the desires of the major powers in Southeastern Europe.

With Serbian independence, Turkey lost access to the Sava route from the south. Bosnia and Hercegovina could be held only through the use of the Sava corridor, for communications from the south had to penetrate difficult mountain barriers. As a result, Turkey gradually lost control of Bosnia and Hercegovina. In 1878, Austria forced Turkey to acknowledge Austria-Hungary as the Protector of Bosnia and Hercegovina. The Serbs of these territories who had been agitating for freedom were subjugated. In 1908, Austria-Hungary annexed Bosnia and Hercegovina and so secured the middle Sava corridor for herself. From 1878 onwards it had been her policy to prevent Serbia or any of the other Balkan nations from growing strong enough to threaten Austria's desire for eventual control of all the land to the Aegean and the southeast. Concurrent with Austrian desires in the south-east were similar designs by Germany who also had great economic interests in the area. The Berlin to Baghdad railway traversed Yugoslavia along the

Morava-Nisava corridor and so jeopardized the independence of Serbia.

Almost from the time Milos Obrenovic became Prince of the Serbs his dynasty was faced with rivalry by the Kara George family. Both families had their adherents. The last two rulers of the Obrenovid dynasty, Milan and Alexander, lost all popularity by subservience to foreign domination (usually Austrian or Russian) and by despotic rule of the land. In 1903, Alexander Obrenovic was assassinated by a group of army officers and the throne was offered to Peter Karageorgevic. The Karageorgevic dynasty lasted until 1945.

In 1912, Serbia, Montenegro, Greece and Bulgaria made an alliance the object of which was further dismemberment of the European possessions of the Ottoman Empire. The Balkan alliance defeated the Turkish armies and parcelled the captured territories of Albania, Macedonia and Thrace among themselves. The great powers of Europe, however, could not countenance a successful alliance in Southeastern Europe. First, Albania was set up as an independent state with a German princeling as titular head, and then, in 1913, Austria and Germany persuaded Bulgaria to attack her partners. Bulgaria was soon defeated by the combined armies of Serbia, Greece, Montenegro and Rumania. Serbia gained control of the major part of Macedonia, although many Macedonians were left in the adjacent section of Bulgaria (i.e. Pirin Macedonia) and in Greece.

Prior to the Balkan War of 1912, the Macedonians had been in an almost constant state of rebellion against the Turks. Serbia, Bulgaria and Greece incited the Macedonians against the Turks and, after Turkey had been defeated, against each other. Macedonia became a land of banditry and murder. Foremost in the guerilla warfare with the Turks had been the IMRO (International Macedonian Revolutionary Organization), a band of terrorists and assassins who became an important force in Balkan politics.

Serbia by this time had completely replaced Montenegro as the cultural standard-bearer of the Serbs. She was not allowed to consolidate her successes of the Balkan Wars of 1912-13, since Austria feared the effect the victories would have on the Bosnians and also on her ambitions. The assassination of Archduke Franz Ferdinand on June 28, 1914, in Sarajevo, provided Austria with the excuse to declare war on Serbia, and thus started the First World War.

The Kingdom of the Serbs, Croats and Slovenes (Yugoslavia) 1918-1945

Serbia and Montenegro, attacked by the armies of the Central Powers, were overrun in 1915 and not liberated until 1918. Serbia was re-won when the Bulgarian armies were defeated in the battles for the control of the Vardar corridor. The defeat of the Bulgars here opened the way into Central Europe and led to the defeat of the Central Powers. The Croatsians, Slovenians and Serbs of the Austrian Empire had been persecuted by their government during the war. Like all the Slavic peoples of the Empire they had desired political autonomy. The persecutions tended to convince them that a complete separation from Austria-Hungary was necessary. The southern Slavic peoples thus migrated politically towards each other. The Serbs of Serbia wished to obtain the hegemony of the Southern Slavs as well as to free them from foreign domination. On December 4, 1918, the new Kingdom of Yugoslavia was proclaimed. This king-

dom was set up as a federal constitutional monarchy. To Serbia and Montenegro were joined the former Austro-Hungarian lands of Slovenia, Croatia, Dalmatia, Bosnia and Hercegovina and the Vojvodina (i.e. the province of Backa and the western part of Banat). For the first time since the early migrations of the Slavic tribes, Serbs, Croats and Slovenes were united into one nation.

The new boundaries of Yugoslavia were based primarily on ethnic distribution. In the Banat district, however, large minorities of Rumanians were included in the Yugoslav territory, and in the Backa district over half a million Magyars. Two small sections of Bulgaria were annexed to the old territory of Serbia in order to strengthen the frontier with Bulgaria. In the northwest, Yugoslavia did not gain control of the Pear Tree Pass region. The Italians, rebuffed at the peace tables, seized Istria and Venezia Giulia, despite the fact that the majority of the inhabitants of these areas were Slovenes, with Italians mainly in the cities. In 1919, D'Annunzio and a band of freebooters seized Rijeka and after a short period during which it was a Free Territory, this port was annexed by Italy. The Yugoslav claims on Austrian Carinthia also came to naught despite a Slovene majority in the contested region. This area about Klagenfurt lies along the valley of the upper Drava and is rich in minerals and potential water-power sites. A plebiscite held under the auspices of the Western Powers resulted in a majority of the inhabitants declaring for Austria. The decisions were accepted by the Yugoslavs but not forgotten. Thus, as constituted in 1918, Yugoslavia controlled the Sava route, except for its westernmost end, and the Morava-Vardar corridor. It occupied the southern end of the Danubian Basin and held the southern side of the Iron Gate and the Danube corridor to the east.

Yugoslavia was soon torn by internal bickering. The legacy of history proved to be too difficult a barrier to surmount. The Croats and Slovenes, although generally considered peasant peoples, were bred in the customs of Western Europe. With universities at Zagreb and Ljubljana, they had advanced culturally ahead of the majority of the Serbs. The Serbs of Serbia, Montenegro, Bosnia and the Vojvodina were culturally backward as a result of being cut off from western civilization for almost 500 years. They were a peasant people who had won their freedom from foreign oppression after an extremely long and difficult war. The differences in language and religion proved a major barrier between the complete rapprochement of Croats and Slovenes with the Serbs. The Croats and Slovenes desired a federal system of government control (i.e. more local autonomy than they were granted) whereas the Serbs wanted a centralist form of government in which the Serbs, of old Serbia, would be all-powerful.

This ominous political state of affairs was made worse by assassination and terrorism. Separate from the Croat-Serb difficulties, but adding to the unhappy state of Yugoslavia, was the activity of the IMRO terrorists in Yugoslav Macedonia. The Bulgarians had not given up their hopes of obtaining control of all Macedonia and, as a result, subsidized IMRO terrorism. IMRO bases of operations were located in Bulgaria's Pirin Macedonia.

By 1929, the internal political situation had deteriorated to the extent where Alexander I had to take a strong hand with the help of the army. Alexander's rule did not help alleviate the Croat-Serb differences

but rather increased the feeling of mutual suspicion. During the early thirties, the general unrest in Yugoslavia and in the other Balkan nations was added to by the disturbing policies of Italy and Germany. Both these nations desired control over the Balkans and over Yugoslavia in particular because of its strategic corridors. As in the period before the First World War, the Second World War was preceded by a number of alliances, non-aggression pacts and treaties among the countries of Central and Southeastern Europe. On October 9, 1934, Alexander I and M. Barthou, the French foreign minister, were assassinated in Marseilles by an IMRO agent paid by Italy and dispatched by Ante Pavelic, the leader of the Croat fascists, the Ustaci. For a short time the assassination of Alexander and the increasing threat from Italy tended to unite the peoples of Yugoslavia, but it was not long before the outside tensions, produced by foreign intervention, caused friction between Serb and Croat again.

Events prior to the outbreak of the Second World War in 1939 followed each other in rapid succession. After the Austrian "anschluss", Germany had a common border with Yugoslavia, and that section of Yugoslavia closest to the Germans - Slovenia and Croatia - was the centre of the greatest disaffection towards the central government. Albania was occupied by Italy in April 1939. Considering Mussolini's desire for possession of Dalmatia, this was a distinct threat to the security of Yugoslavia despite the poor communications of the region. The balance between Italy and Germany turned in favour of the latter, which had easier and stronger connections with Southeast Europe. Consequently the Balkan nations tended to move toward the German camp. This was especially true after 1940 when Greece threw back the Italian attack. In 1941, Hungary, Rumania and Bulgaria became German satellites. Germany put political pressure on Yugoslavia to join the Axis camp. A three-party pact made by the government with Italy and Germany on March 25, 1941 was quickly repudiated by an uprising of the Yugoslavs despite the fact that such a repudiation was inviting attack from German forces which surrounded Yugoslavia on almost three sides.

Germany invaded Yugoslavia on April 2, 1941, and within a short time the country was overrun. The government and King Peter II went into exile. A number of Serbian troops went into the hills and continued to fight the Germans and Italians by guerilla warfare. Germany annexed most of Slovenia. Hungary took the Backa region of the Vojvodina and a section of the valley of the Upper Drava. The Banat became a German Protectorate, while eastern Macedonia was annexed by Bulgaria. Italy took a small part of Croatia next to Istria and large sections of the Dalmatian coast. Puppet states were established in Croatia, Serbia and Montenegro.

When Germany invaded Russia in 1941, the Yugoslav Communists, who had been outlawed since 1921, began to organize a resistance movement against the Germans. This was the Partisan movement led by Josip Broz or Tito, a Croat. Between 1941 and 1945 all Yugoslavia was a battleground, for not only was guerilla warfare carried on against occupying Axis troops - Germans, Italians, Hungarians, and Bulgarians - but there was also a three-way civil war within the country. In the latter case, Croat Ustaci (troops of the puppet Croat state of Pavelic), Serbian Chetniks (mostly Orthodox Serbs of the centralist school led by Michailovitch) and Tito's Partisans (drawn from the younger elements of all the Serbs, Croats, Slovenes and Macedonians) fought each other bitterly. Towards the close of the war the brunt of the anti-Axis fighting was carried on by the Partisans.

The Federated People's Republic of Yugoslavia

In December 1945, the Kingdom of the Serbs, Croats and Slovenes vanished and was replaced by a Federated People's Republic with Tito as the Prime Minister of an elected government. The Republic is typical of People's Republics elsewhere in the world; in fact, the international position which Yugoslavia occupies today is somewhat reminiscent of the position held by the U.S.S.R. in 1922-1925. Six autonomous republics; Serbia, Slovenia, Croatia, Macedonia, Montenegro, and Bosnia and Hercegovina, and two autonomous provinces, Vojvodina and Kosovska Metohijska, constitute the federation (Fig. 15). It is an attempt to eliminate permanently the troubles resulting from the ethnic distribution within Yugoslavia. Recognition of minority rights and female suffrage were important planks in the country's new constitution.

Territorially Yugoslavia expanded only slightly as a result of the war. Istria and the Julian Marches were annexed except for the Free Territory of Trieste. Zadar (Zara) which the Italians had seized in 1920 was returned. Thus the half million Slovenes and Croats, who had been severely persecuted by Italy, were united once more with their kindred. Yugoslavia also now controlled the entire Sava route from Beograd to the Pear Tree Pass, and was the first nation to do so since Roman times, excluding Germany's short period of conquest. During 1946-7 most of the Italian minority of Istria and Zara, about 140,000 in all, migrated to Italy.

The city of Trieste, a source of strife between Yugoslavia and Italy in 1918, still causes similar tensions. Its population of almost 350,000 is mostly Italian with a minority of Slovenes; its hinterland is Central Europe for it is the closest port to the Pear Tree Pass and the routes to the interior of Europe. Today the Free Territory of Trieste is divided into two zones. Zone A includes the city and port and has a population of 281,000 (1946). It is ruled by an Anglo-American Military Commission. Zone B constitutes the rest of the territory and is ruled by Yugoslavia. It is predominantly rural, with a population of about 60,000 Slovenes and Croats.

Yugoslavia, as in 1918-19, has made claims (unsuccessful to date) on the Slovene-occupied parts of Austrian Carinthia with their good hydro-electric power sites and mineral potential. Other than Carinthia and Trieste, Yugoslavia has made no claims for additional territory.

Internal peace was obtained by giving the minority group full autonomy within a federal organization. Through the medium of a Five Year Plan the Yugoslav government is attempting to raise the standard of living and self-sufficiency of its peoples. Industrialization and urbanization are proceeding hand in hand with the growth of co-operatives (i.e. the Yugoslav type of collective farming) among the independent, land-owning peasantry. Most of the peasants, other than the Magyars of the Vojvodina, were property-owners.

One of the chief difficulties facing Yugoslavia is its estranged relationship with the Cominform and the Cominform member nations who are her neighbours. Hungary, Rumania, Bulgaria and Albania have all broken diplomatic and economic relations with Yugoslavia. This blockade by her sister People's Republics (including the U.S.S.R.) has had its effect on

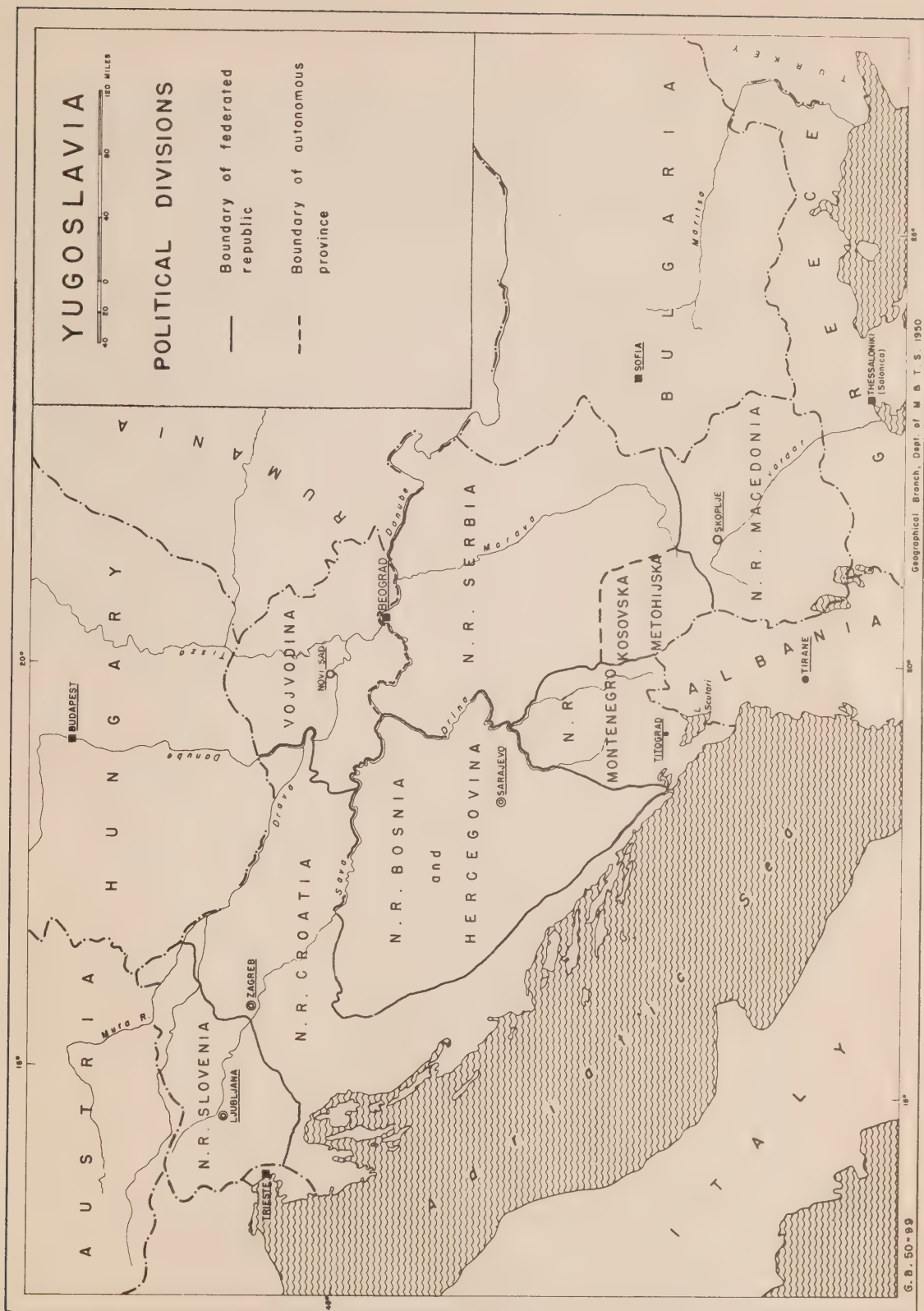


Fig. 15

the development of the Five Year Plan and has forced Yugoslavia to deal economically with the Western nations, albeit, ideologically, she has her differences with them. The Cominform break has also seriously hampered traffic along the Danube and the development of any comprehensive plan for the use of the Danube by the nations through which it flows. Yugoslavia, although it sits on the Danube River Commission, can accomplish little for itself, for it is constantly outvoted by the other member nations.

As a member of the United Nations Organization, Yugoslavia takes a full part in many of the various Councils and Assemblies which constitute the organization. In 1950, she filled one of the seats on the Security Council. The role played by Yugoslavia in the United Nations has changed with time. Up to the break with the Cominform, Yugoslavia stood in the front rank of the U.S.S.R.'s satellites, voting as the U.S.S.R. voted and abstaining when the U.S.S.R. abstained. After the break with the Cominform, although she no longer could be considered one of the satellites of the U.S.S.R., Yugoslavia has continued to vote on almost all issues in favour of the policy proposed by Russia and the Eastern bloc. The reason for this is simple - Yugoslavia's form of government is similar to that of the nations of the Eastern bloc. But, because of the political and economic boycott of Yugoslavia by the Eastern bloc, she is tending to become more and more independent in the realm of international politics, and is trying to reach an independent state between East and West, for, although Yugoslavia's ideological beliefs lie with the U.S.S.R. and the Eastern bloc, her trade and economic well-being today lie with the West.

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